CHEMICAL PRESERVATIVES

UNIVERSITY
OF MICHIGAN

JUN 10 1958

MAIN
READING ROOM

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE HOUSE OF REPRESENTATIVES

EIGHTY-FIFTH CONGRESS

SECOND SESSION

ON

H. R. 9521

A BILL TO AMEND PARAGRAPH (k) OF SECTION 403 OF THE FEDERAL FOOD, DRUG, AND COSMETIC ACT, AS AMENDED, TO DEFINE THE TERM "CHEMICAL PRESERVATIVE" AS USED IN SUCH PARAGRAPH

APRIL 21 AND 24, 1958

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CHEMICAL PRESERVATIVES

MONDAY, APRIL 21, 1958

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH AND SCIENCE OF THE
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The subcommittee met at 2:30 p. m. in room 1334, House Office Building, Hon. John Bell Williams (chairman of the subcommittee) presiding.

Present: Representatives Williams, Rhodes, Dingell, Loser, Bush, Schenck, Carrigg, Neal, and Harris.

Mr. WILLIAMS. The Health and Science Subcommittee of the Committee on Interstate and Foreign Commerce is meeting today to hold hearings on H. R. 9521, introduced by our colleague, Mr. Haley, of Florida, a bill to amend paragraph (k) of section 403 of the Federal Food, Drug, and Cosmetic Act, as amended, to define the term "chemical preservative" as used in that paragraph.

This bill would provide that the term "chemical preservative," as used in section 403 (k) of the Food and Drug Act shall not include any pesticide chemicals when used in or on any raw agricultural commodity which is the produce of the soil. Chemicals which help preserve food by retarding the growth of mold or bacteria are chemical preservatives within the meaning of section 403 (k) of the act. Section 403 (k) of the act now deems a food to be misbranded if it bears or contains a chemical preservative, unless it bears labeling stating that fact, or unless the Secretary of Health, Education, and Welfare has established an exemption from this requirement.

Thus, the bill would permit preservative chemicals to be added to fresh fruits and vegetables without any notice to the purchaser or consumer that a preservative has been used.

A copy of H. R. 9521 and the reports on this bill from the executive departments and agencies will be inserted in the record at this point.

(The documents referred to follow:)

[H. R. 9521, 85th Cong., 1st sess.]

A BILL To amend paragraph (k) of section 403 of the Federal Food, Drug, and Cosmetic Act, as amended, to define the term "chemical preservative" as used in such paragraph

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That paragraph (k) of section 403 of the Federal Food, Drug, and Cosmetic Act, as amended (21 U. S. C. 343 (k)), is amended by adding at the end thereof the following new sentence: "As used in this paragraph the term 'chemical preservative' shall not include any pesticide chemicals when used in or on any raw agricultural commodity which is the produce of the soil."

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE,
Washington, April 18, 1958.

Hon. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

DEAR MR. CHAIRMAN: This letter is in response to your request of September 20, 1957, for a report on H. R. 9521, a bill to amend paragraph (k) of section 403 of the Federal Food, Drug, and Cosmetic Act, as amended, to define the term "chemical preservative" as used in such paragraph.

The bill would provide that the term "chemical preservative," as used in section 403 (k) of the Federal Food, Drug, and Cosmetic Act, shall not include any pesticide chemicals when used in or on any raw agricultural commodity which is the produce of the soil. Chemicals that help preserve food by retarding the growth of mold or bacteria are chemical preservatives within the meaning of section 403 (k) of the act. If they are used on raw agricultural commodities, they also are pesticide chemicals within the meaning of section 408 of the act.

Section 403 (k) of the act now deems a food to be misbranded if it bears or contains a chemical preservative, unless "it bears labeling stating that fact" or unless, as mentioned below, the Secretary has established an applicable exemption from this requirement. Thus, the bill would permit preservative chemicals to be added to fresh fruits and vegetables without any notice to the purchaser or consumer that a preservative has been used. While section 403 (1) (2) of the act would, in the absence of an exemption established by regulation under that provision, still require such treated food to bear a label listing the common or usual name of the added chemical (as well as other ingredient), it would not require that the label disclose the function of the chemical preservative, as such.

We understand that the bill is proposed because growers, shippers, and retailers find that it is inconvenient to declare the added chemical preservatives in labeling, and because it is harder to sell the produce when the consumer is informed that a chemical preservative has been added.

The requirement of section 403 (k) is an expression of the basic principle of honesty and fair dealing in the interest of consumers that runs through the act. Consumers have a legitimate interest in knowing that a chemical preservative is present on the food they are asked to buy, whether the food be fresh fruit or vegetables or any other food. Inquiries which this Department has made during the past year and correspondence from consumers indicate that consumers want to have this information whenever it is possible and practicable to provide it. This is true, notwithstanding the fact that the safety of the chemical preservative on raw agricultural commodities is sought to be assured by another section recently added to the law (section 408) which provides for the establishment of safe tolerances for useful pesticide chemicals used on such commodities.

Section 403 (k) of the present law is not designed to place an impracticable requirement on growers, shippers, or sellers of produce of the soil. It provides that "to the extent that compliance with the requirements of this paragraph is impracticable, exemptions shall be established by regulations promulgated by the Secretary." This Department has already issued some exemptions in accordance with this proviso, and has proposed others which are pending.

Since we believe that the consumer has a legitimate interest in, and, in fact, desires, the information required by section 403 (k) of the act with respect to chemical preservatives on produce of the soil, and since provision is made for exemptions whenever it is impracticable to meet the requirements of the law, we recommend against the enactment of the bill.

The Bureau of the Budget advises that it perceives no objection to the submission of this report to your committee.

Sincerely yours,

E. L. RICHARDSON, *Acting Secretary.*

DEPARTMENT OF AGRICULTURE,
Washington, D. C., April 18, 1958.

Hon. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives.

DEAR CONGRESSMAN HARRIS: This is in reply to your request of September 20, 1957, for a report on H. R. 9521, a bill to amend paragraph (k) of section 403 of the Federal Food, Drug, and Cosmetic Act, as amended, to define the term "chemical preservative" as used in such paragraph.

The bill would add the following new sentence to paragraph (k) of section 403 of the Federal Food, Drug, and Cosmetic Act: "As used in this paragraph, the term 'chemical preservative' shall not include any pesticide chemicals when used in or on any raw agricultural commodity which is the produce of the soil."

At present, section 403 (k) of the Federal Food, Drug, and Cosmetic Act deems a food to be misbranded, "if it bears or contains any artificial flavoring, artificial coloring, or chemical preservative, unless it bears labeling stating that fact." The term "chemical preservative" is defined by regulation to mean any chemical which, when added to food, tends to prevent or retard deterioration thereof.

From the standpoint of the activities of this Department, we would have no objection to enactment of the bill, since it would have no adverse effect on the programs administered by the Department of Agriculture. However, you may wish to obtain the views of the Department of Health, Education, and Welfare regarding the bill.

The Bureau of the Budget advises that there is no objection to the submission of this report.

Sincerely yours,

TRUE D. MORSE, *Acting Secretary.*

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington, D. C., April 18, 1958.

Hon. OREN HARRIS,
Chairman, Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

MY DEAR MR. CHAIRMAN: This is in reply to your request of September 20, 1957, for a report on H. R. 9521, a bill to amend paragraph (k) of section 403 of the Federal Food, Drug, and Cosmetic Act, as amended, to define the term "chemical preservative" as used in such paragraph.

This bill would add the following new sentence to paragraph (k) of section 403 of the Act: "As used in this paragraph, the term 'chemical preservative' shall not include any pesticide chemicals when used in or on any raw agricultural commodity which is the produce of the soil."

It appears from a reading of the report of the Department of Health, Education, and Welfare that the practical effect of this bill would be to eliminate the labeling requirements of section 403 (k) insofar as they affect the use of chemical preservatives on fresh fruits and vegetables.

Section 403 (k) of the act has the purpose, among others, of providing that the consumer be informed of the presence of chemical preservatives on foods to the extent that it is practicable to supply this information. The Department of Health, Education, and Welfare states its belief that the consumer has a legitimate interest in, and, in fact, desires, this labeling information.

The Secretary of the Department of Health, Education, and Welfare is given the authority to determine the practicability of these labeling requirements, and to establish exemptions where there is a need. The Department reports that it has already issued some exemptions in accordance with this authority, and that it has proposed others which are pending.

In view of the foregoing, the Bureau of the Budget concurs with the Department of Health, Education, and Welfare in recommending against enactment of this bill.

Sincerely yours,

PHILLIP S. HUGHES,
Acting Assistant Director for Legislative Reference.

Mr. WILLIAMS. At this point, I would like, also, to acknowledge the presence of several of our collegues, the Honorable Charles Bennett, of Florida, and the Honorable Billy Matthews, of Florida, neither of whom, I understand, plan to testify on the legislation, but who are here to indicate their support of the legislation.

In addition to these gentlemen, we have our colleagues, the Honorable Jim Haley, of Florida, and the Honorable Walt Horan, of Washington, who, I understand, will make statements before this committee.

At this time, I am pleased to call the author of the bill, the Honorable James Haley.

STATEMENT OF HON. JAMES A. HALEY, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. HALEY. Mr. Chairman and members of the committee, first, I would like to thank you, Mr. Chairman and the members of the committee, for this opportunity to be heard. This is a bill that is of vital importance to the people of the section of the great State of Florida which I have the honor to represent, and I am, indeed, grateful for the members of this committee taking time out this afternoon to hear these people from Florida who are so vitally interested in this matter.

Mr. Chairman, and members of the subcommittee, the bill before you today, H. R. 9521, is of fundamental importance to the fresh fruit and vegetable industry, to the retail trade handling fresh produce, and to consumers. Its objective basically, is to bring about a workable application of the Miller pesticide chemical amendment and the rodenticide provisions of the Food, Drug, and Cosmetic Act to the marketing and labeling of fresh fruits and vegetables bearing residues of certain pesticide chemicals.

I want to state at the outset that the matter of safety of the use of these chemicals is in no manner involved in the problem with which H. R. 9521 is concerned. As you know, pesticide chemicals have been found to be extremely effective in reducing the serious losses of perishable raw agricultural commodities from decay and insect infestation. The necessity of their use for the production and bringing to the market of fresh produce is fully recognized by fruit and vegetable growers, by scientific experts in the field, by the land grant institutions who are responsible for so much of the progress which has been made in developing these chemicals, and by the Food and Drug Association.

That this necessity has been recognized by the Interstate and Foreign Commerce Committee and the Congress is demonstrated by the enactment of the Miller pesticide chemical amendment which provides for the regulation by FDA of the use of pesticides to protect the public health.

The Food and Drug Administration has ruled that fresh produce bearing residues of certain pesticides applied after harvest must be labeled to state that a chemical preservative is present and the name of the chemical used.

Basically, the chemicals affected by the FDA ruling are fungicides applied after harvest to retard decay of the produce, primarily during transmission to the market. The labeling would be required both during shipment and while the produce is on display in retail stores. The essential reason for the FDA ruling was the provision of section 403 (k) of the Food, Drug, and Cosmetic Act, under which the presence of chemical preservatives must be shown on the label of foods bearing or containing them. The fresh fruit and vegetable industry believes that fungicides are not properly classified as chemical preservatives.

You will hear expert testimony on this point.

FDA does not regard, and has never regarded insecticides (which are used to protect fresh fruits and vegetables against insect infestations) as chemical preservatives. The industry agrees with this view. Its position is, however, that neither insecticides or fungicides are chemical preservatives and, therefore, the application of chemical preservative labeling to fresh produce bearing fungicidal residues is not contemplated by the law.

It is impossible to comply with the FDA ruling that fresh produce must bear chemical preservative labeling. The multiplicity of fungicides which are employed for postharvest protection of fresh produce and the method of preparing for shipment and marketing such produce, makes it entirely impractical to correctly label every shipment and every retail display of fresh fruits and vegetables treated with fungicides, either to identify the fungicide used or to distinguish between produce which has and that which has not received this treatment.

It is a violation of the statute and a criminal offense to place an incorrect label upon the shipment or upon a display in a retail store. It is evident that either there will be many hundreds of violations of the FDA requirements in retail stores throughout the country, or the retailer will refuse to purchase produce which has been treated with fungicides after harvest in order to avoid incurring criminal liability. Some large chain stores have already refused to accept produce so treated. The result will be, we feel sure, to reduce the development of new pesticides and the use of those now available, the discouragement of the use of fresh fruits and vegetables, and great economic loss from the decay of those which are placed upon the market.

The industry has made persistent efforts to obtain administrative relief from the FDA on the ground that the chemical preservative labeling requirement is impractical. FDA has the authority to grant relief on the grounds of impracticability, but has refused to do so so far. As a result, the industry feels it necessary to request the enactment of H. R. 9521. The bill would provide relief by excluding from the term "chemical preservatives" as used in section 403 (k) of the act, pesticide chemicals which are used on raw agricultural commodities, which are a product of the soil.

As I have said, the safety of the chemical used is not in question. That fact is taken care of by FDA under the Miller pesticide chemical amendment. The effect of H. R. 9521 would be simply to remove a labeling requirement which cannot be met, and which, in the view of the industry, is based upon an unsound construction of the statute.

I notice, Mr. Chairman, and members of the committee, that the Department report, a copy of which I have just received, states this:

> We understand that the bill is proposed because growers, shippers, and retailers find that it is inconvenient to declare the added chemical preservative in labeling, and because it is harder to sell the produce when the consumer is informed that a chemical preservative has been added.

In reply to that, Mr. Chairman, let me read from a letter dated June 21, 1957, from the Public Super Markets, Inc., one of the largest organizations of this kind, I presume, in the State.

This letter was addressed to Mr. Martin Hearn, at Florida Citrus Mutual, at Lakeland, Fla.

Quoting from that letter, Mr. George W. Jenkins says this:

> Let us cite some specific example to illustrate the impracticability of such a requirement under our operations. Fresh pears, grapes, peaches, apricots, lettuce, and other produce are supplied by numerous different shippers throughout the country.
>
> Assuming that three different suppliers of the same item used three different pesticide chemicals on their fruits or vegetables in order to conform to section 403(k), we should have to set up three distinct and separate displays, each with its own particular place cards, showing what chemical was used on that lot. This would, in effect, require three times the space area, with each lot being kept rigorously separated from the other.
>
> It might happen that one lot sold faster than the other, too. Yet that particular display would have to be left in its own bin until completely sold. There would be no possibility of mixing lots. If, on the other hand, a consumer selected fruit from one lot, then put it back in a different lot, we are in technical violation of the food and drug regulations, and subject to prosecution in the Federal courts.
>
> A very real danger exists that the placard placed inside the box by the shipper may be lost in transit.
>
> How are we to tell, without a chemical analysis, what chemical pesticide, if any, was used on the fruit? The supplier might be able to tell us, but we would have to hold up sale of a highly perishable product until we received or prepared another placard.

I cite that, Mr. Chairman and members of the committee, just to show you that here is a man who is dealing in this commodity, or these commodities, in a big way, and he says it is impractical.

I have followed closely the attempts of the industry to obtain a reversal of or an exemption from the FDA ruling. The FDA disposition is evidently to consider the matter commodity by commodity, or according to classes of commodities.

Such a procedure would be time-consuming and costly, and, judging from past experience, would offer little, if any, hope of success. I strongly feel, therefore, that enactment of H. R. 9521 is the proper solution and probably the only satisfactory solution to this problem. I urge wholeheartedly the favorable consideration and adoption of this bill by your committee, Mr. Chairman.

Mr. WILLIAMS. Does that conclude your statement, Mr. Haley?

Mr. HALEY. Yes.

Mr. WILLIAMS. Thank you very much. I might state for the benefit of the members present that this bill received an adverse report from the Department of Health, Education and Welfare, and also from the Bureau of the Budget.

The Department of Agriculture does not take any position on the matter except to state that from the standpoint of the activities of that Department, they would have no objection to the enactment of the bill. In the report of the Department of Health, Education and Welfare, a copy of which I think you have in front of you, Congressman, the last paragraph on page 1 states, in part, as follows:

> Inquiries which this Department has made during the past year and correspondence from consumers indicate that consumers want to have this information whenever it is possible and practicable to provide it. This is true notwithstanding the fact that the safety of the chemical preservative on raw agricultural commodities is sought to be assured by another section recently added to the law (sec. 408) which provides for the establishment of safe tolerances for useful pesticide chemicals used on such commodities.

Do I understand from this language that the bill that you have presented would have no effect whatsoever upon the safety factor?

It does not deal with the question of safety at all, does it?

Mr. HALEY. No, sir. It is the practicability of putting this label on each box or on each article.

Mr. WILLIAMS. Mr. Bush, have you any questions?

Mr. BUSH. I don't know that there is anything I could add to what Mr. Haley has already stated.

It is a fact, isn't it, that it is impossible to produce good, healthy fruits and vegetables today without using some kind of an insecticide or chemical of some kind to kill the insects?

Mr. HALEY. I might say, Mr. Bush, that while I am not an expert on it, you will hear expert testimony here today on this bill that I think will bear out your statement.

Mr. BUSH. That is all, Mr. Chairman.

Mr. WILLIAMS. Mr. Dingell?

Mr. DINGELL. No questions.

Mr. WILLIAMS. Mr. Schenck?

Mr. SCHENCK. No questions.

Mr. WILLIAMS. Mr. Loser?

Mr. LOSER. No questions.

Mr. WILLIAMS. Mr. Neal?

Mr. NEAL. I don't think I have any questions, but, Mr. Haley, as I understand your bill, it is simply to remove some of the requirements of the Pure Food and Drug Act insofar as it compels labeling of the insecticides or the preservatives or whatnot on each and every shipment of produce, whatever it may be, that goes out to the markets?

Mr. HALEY. That is correct.

Mr. NEAL. Do you find that it is of such varied coverage that it is impossible to comply with the law? Is that it?

Mr. HALEY. That is the statement of the industry, Mr. Neal. Of course, this thing could be taken to a ridiculous proportion. For instance, I understand that even on potatoes, sometimes, you put some kind of preservative. Are you going to make them label each potato?

Mr. NEAL. I understand this does not apply to any chemicals or any insecticides or anything in the way of fertilizer or whatnot that is used on the soil in the production of the product?

Mr. HALEY. That is correct.

Mr. NEAL. It is only after it is gathered, and when such methods are employed that will help to either improve the looks or preserve the material longer or make it more salable. Is that the idea?

Mr. HALEY. The gentleman is absolutely correct, in my understanding.

Mr. NEAL. Thank you.

Mr. WILLIAMS. Thank you very much, Mr. Haley.

Mr. HALEY. Thank you.

Mr. WILLIAMS. At this time we welcome our colleague from Florida, Congressman Herlong, who I understand has a brief statement he would like to make.

Congressman Herlong.

STATEMENT OF HON. A. SYDNEY HERLONG, JR., A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. HERLONG. Thank you, Mr. Chairman, and may I express my appreciation to you and to the committee for sitting this afternoon to hear these people from Florida who are up here on a matter that

is of utmost importance to the Florida citrus industry as well as other industries throughout the United States. I would like to say that I am strongly in favor of this legislation. I indorse what my colleague, Mr. Haley, has said. I will supply to the committee for the record a more complete statement. I can say briefly that this is a case where the committee can do something which will let the Florida citrus industry continue to operate efficiently and effectively. Without it, we do not know what is liable to happen to our industry. That is all I have to say at this time, Mr. Chairman. Thank you very much.

Mr. WILLIAMS. Are there any question from any member?

Mr. NEAL. Would it be proper to ask our colleague this question: What are some of the things that are used on citrus fruits?

Mr. HERLONG. I would prefer that you have some of these people who are experts in that field, Doctor, give testimony on it. They will cover that shortly.

Mr. NEAL. Thank you.

Mr. HERLONG. I would just be taking up your time to discuss it at this time.

Mr. WILLIAMS. Thank you very much.

Our next witness is another of our colleagues, this time from the State of Washington, Hon. Walt Horan, who is also a member of the Subcommittee on Agricultural Appropriations.

STATEMENT OF HON. WALT HORAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mr. HORAN. I am pleased to join with my colleagues from Florida and other people representing the fruit and vegetable industry of the entire Nation, who are here in the room now, and who are capable of answering all questions. I want to thank this committee for taking the time to hold these hearings, because I think they will result in some clarification of the food and drug law as it applies to the use of nonpoisonous chemical preservatives which may be employed by the perishable fruit and vegetable industry in order to safeguard the food supply of the Nation.

With others who are testifying here with me today, I feel that we should make it crystal clear that:

One, we are talking about nonpoisonous chemicals, not about pesticides in this particular instance.

Two, it appears, in my opinion, at least, that there is complete agreement that the law as presently written needs clarification.

Three, these hearings should have a strengthing effect upon the procedures and the great work which has been done through the years by the Food and Drug Administration.

Mr. Chairman, there are many qualified witnesses ready to testify here, including those from industry who know the technical effects on the operations of the various perishable industries which they represent. We also have some very able men from the Food and Drug Administration, including Dr. John L. Harvey, who will furnish us with the benefit of their knowledge. I might say in closing that this is a problem which has been under discussion for many months, and that a good spirit has existed by the Food and Drug Administration as the administering body, as well as by those who have con-

tacted the Food and Drug Administration on behalf of their various industrial problems.

That concludes my testimony, Mr. Chairman.

Mr. WILLIAMS. Thank you very much, Mr. Horan.

Are there any questions from the committee?

Mr. HORAN. I would take the position, Mr. Chairman, that we have some very able men who can testify expertly. I feel as my colleague Mr. Herlong does, that probably I would just be taking up your time. It would be better to get the information from the experts.

Mr. WILLIAMS. Thank you very much.

Now we welcome back an old friend from the State of Florida, who was chairman of one of the standing committees of this House at the the time he left us, what is now the Interior and Insular Affairs Committee.

I speak of Hon. J. Hardin Peterson of the State of Florida.

We are pleased to have you back, Mr. Peterson.

STATEMENT OF HON. J. HARDIN PETERSON, REPRESENTATIVE FOR THE FRUIT AND VEGETABLE INDUSTRY, LAKELAND, FLA.

Mr. PETERSON. Thank you very much. I am pleased to see my colleagues on the committee.

Mr. Chairman, my statement will be a little longer than it normally would be because it is a composite of 27 or 28 other statements. I am making a presentation on behalf of various vegetable and fruit growers in various parts of the country, embodying that number of organizations. The list of those organizations I have appended to the final part of my statement.

My name is J. Hardin Peterson. I am appearing in behalf of H. R. 9521. I am here as a representative of the fresh fruit and vegetable industry and other interested groups.

A list of the associations, firms, and organizations upon whose behalf I am authorized to appear is attached to my written statement.

You will observe that the list is broadly representative of the fresh fruit and vegetable industry in the United States and includes also a State agency which is directly concerned, the Florida Citrus Commission.

We are grateful for this opportunity to present our case in support of H. R. 9521.

The purpose of the bill is to afford relief from the effects of a ruling of the Food and Drug Administration that fresh fruits and vegetables bearing harmless residues of certain pesticide chemicals must bear labeling stating that such residues are present.

At this time, I will refer to the question asked as to whether the question of tolerance is involved.

Section 408 of the act, of course, protects, and these particular residues, of course, must be harmless residues. There is no question of the health involved. It is only a question of labeling.

The safety of such residues is established by FDA before the chemicals are used. Both industry and consumers are adversely affected by the FDA ruling in a very substantial manner and will be even more widely and seriously affected if the relief which we ask is not granted. As you will see from my testimony and from that of representatives

of the retail trade who will appear before you, the trade is likewise adversely affected in substantial degree by the ruling in question.

The FDA attitude has resulted in the refusal by many large retail establishments, including food chains, to purchase fresh fruit and vegetables which have received post-harvest treatment with pesticide chemicals. Its long-term effects upon the grower and handler, upon the improvement and development of new pesticides, and hence upon the availability of fresh produce to the consumer at a reasonable price, are of serious concern to the industry.

The purpose of the use on fresh fruits and vegetables of the pesticide chemicals with which we are concerned is to reduce the incidence of decay in these exceedingly perishable commodities.

The statement of Mr. Buford D. Thompson of the Florida Agricultural Experiment Station, which will be filed with the committee, reflects the appalling losses from decay during the production and marketing process.

Mr. Thompson notes that decay losses in transit alone, of vegetables in the New York City market, are estimated by the United States Department of Agriculture at about 3 percent, or $10 million annually in this single market.

Additional losses in the retail store range from 8 to 24 percent, depending upon the vegetable. Mr. Thompson continues:

> Thus, statements such as those made by William Kling of War Food Administration in the Journal of Farm Economics in November 1943, are not unreasonable, although shocking. He estimated that potato wastes were 28 percent, tomatoes 33 percent, green and yellow vegetables 43 percent, and all fruits and vegetables about 20 percent, or $200 million annually at 1942 prices. These are physical, discernible losses. Losses in vitamins, moisture, and nutrients are less evident but they too occur, and their reduction is the object of much research.

Clearly, any Government action which reduces the use of pesticide chemicals to combat such losses, is harmful both to consumers and industry. Here is how Mr. George W. Jenkins, general manager of Publix Super Markets, a large Florida food store chain, sees the stake of the consumer in this matter as stated by him in a letter of June 21, 1957, to Mr. Martin Hearn of the Florida Citrus Mutual.

Mr. Jenkins explained the impracticability of complying with the FDA labeling requirement and the inevitable violations which would result—points which I shall hereafter discuss.

He then said:

> We must, therefore, go on record that should Food and Drug enforce present regulations—and insist on the labeling of chemically treated fresh produce, we shall be compelled, in self-defense, to refuse to buy any item so treated. This, of course, will inevitably mean a considerably higher loss from spoilage because of shorter shelf life, with the resultant higher retail cost to the American consumer. We are wondering whether the Food and Drug Administration is prepared to defend this compulsory increase in the cost of fresh produce to the public as fully justified.

Last year, Mr. Jenkins' organization handled between seven and eight million dollars of fresh produce.

Let me emphasize that no problems of health or safety in connection with the consumption of fruits and vegetables treated with pesticides is involved. This is a fact which has been explicitly recognized by the Food and Drug Administration as I am sure FDA will tell this committee.

The only question dealt with by H. R. 9521 is one of labeling: Whether commodities treated with the pesticides involved—which I shall shortly identify more specifically—must bear labeling to show the presence upon such commodities of any residues remaining from such treatment.

The health and safety aspects of the use of pesticides on raw agricultural commodities are effectively handled under the pesticide chemical amendment to the Federal Food, Drug, and Cosmetic Act (the Miller amendment), which was enacted in July 1954.

Mr. WILLIAMS. Does this bill affect in any way the requirements for labeling with regard to artificial coloring?

Mr. PETERSON. No, sir; it does not, sir.

Mr. WILLIAMS. It is limited only to so-called pesticides and preservatives?

Mr. PETERSON. Yes, preservatives, that is right. The trouble has grown about by things that we normally would not have thought of as preservatives, but the interpretation is that they are preservatives. They have gone rather far in many instances. If they wash fruit, the washing of the fruit itself might use a tiny bit of an ingredient which tends to retard the growth of a fungus. That is treated and classified as a preservative. It has nothing to do with the color. I have dealt with color problems.

Mr. WILLIAMS. That is covered by separate laws.

Mr. PETERSON. Yes; by separate legislation. We are dealing purely with only what we would normally consider as postharvest preservatives, as they are trying to interpret the word preservatives.

Mr. WILLIAMS. The question arises in my mind, and I have heard it discussed by other members of the subcommittee, where some of us have been confused by the use of the term pesticide. I think all of us understand the purpose of using a preservative, but where does the pesticide part of it enter the picture in a fruit already harvested?

Mr. PETERSON. The word "pesticide" is more general. In the fact of 1947, there is a definition of various terms, herbicides, pesticides, economic poison, insecticides, fungicides, rodenticides, and then it goes into weeds and insects.

"Pesticide" is broad. It could be dealing actually with the general destruction of fungus or any pest, taking that term. It is a broad term. But in our act here, we provide that the term chemical preservatives shall not include any pesticide chemical. That would be a chemical for the killing or destruction of pests. The word "pesticide" is broader.

Insecticide and fungicide would be a broad term. It is that which kills a pest, so to speak.

Mr. WILLIAMS. Could you give us a practical example or a hypothetical case of the use of a pesticide or a chemical coming in the category of being a pesticide after the harvesting of the fruit?

Mr. PETERSON. We use in Florida diphenyl or biphenyl, a minute residue of that, and in California they use, I think, ammonium pellets. They use a number of other things with long, technical names, that the experts will give you. In many instances, they just place mats in the boxes. We have, for instance, in Florida, blue mold, decay in transit, and for lack of better term we finally call it a decay in transit. There was a high percentage of loss. By the use of this,

they have reduced that materially. I might say the agricultural experiment station in the State of Florida and the Federal Government have spent immense sums of money helping develop these various things to prevent decay.

For instance, placing these mats with the chemical prevents blue mold, stem-end rot, and various other things.

So we use the broad term, and we have limited it, you will notice, raw agricultural commodities which are the produce of the soil. Raw agricultural commodities are also defined in the law itself. We go a little bit further to say which is the produce of the soil to get away from the question of meats and chickens and that sort of thing.

We have tried to limit it as much as we can.

Mr. HARRIS. Is a pesticide chemical in any way a preservative?

Mr. PETERSON. They take the position it is. We never did until they took the position.

Mr. HARRIS. You Mean the Food and Drug Administration?

Mr. PETERSON. Yes.

Mr. HARRIS. What about the industry?

Mr. PETERSON. The industry always felt that it was not strictly under what you would call a general term of preservative as such.

Mr. HARRIS. This is aside from the technical phases of it. Let's get to the practical features of it.

Mr. PETERSON. The technical feature is that it does inhibit decay and that sort of thing. We have some experts in that line who can testify to that. It does prevent the decay. It prevents the organisms that destroy. To that extent, you might say it is a preservative. We haven't thought technically that it was what would be normally a preservative. When you put inside a can of something something that actually preserves, that is one thing.

But this doesn't exactly preserve. It just prevents something from getting in there to destroy.

Mr. WILLIAMS. Do I understand that the use of the word pesticide in this bill, in addition to preservative, is to satisfy the interpretation or definition that has been placed upon pesticides by the Food and Drug Administration, and actually this bill is directed at preservatives and not at what are generally accepted to be pesticides?

Mr. PETERSON. That is right. The law defines pesticides, and herbicides are there, and the various other items. But the term chemical preservative or added ingredient is nowhere defined in the law.

As we develop further, there will be a chemist who can give you more of the details of the chemical situation.

Mr. SCHENCK. Frequently on citrus fruits, you see a label that says "Color added." That has nothing to do with this legislation?

Mr. PETERSON. No, sir; it has nothing to do with that. I am thoroughly familiar with that. I have been in litigation on that particular matter. It has nothing to do with this. That is a question of a certification of a coal-tar color, and under the law of the State of Florida and under the law of the State of Texas, the fruit must have a higher standard of maturity before it is colored, and then it is marked "Color added."

I will say this, that for years we fought to have a mature fruit, and require higher standards for the coloring. I was in the fight in Florida to prevent the shipment if immature fruit.

But that has nothing to do with this.

Mr. SCHENCK. H. R. 9521 has no bearing at all on this coloring?

Mr. PETERSON. Neither directly or indirectly on that, no, sir. There is separate legislation covering that.

Mr. SCHENCK. Thank you.

Mr. DINGELL. Mr. Chairman, may I ask a question at this point?

Mr. WILLIAMS. Mr. Dingell.

Mr. PETERSON. I might say that there are some appearing today on behalf of this bill who oppose color added.

Mr. WILLIAMS. Mr. Dingell has a question.

Mr. DINGELL. Are any of these pesticides that we have been discussing injected into the fruit?

Mr. PETERSON. No, sir; you have hit the nail on the head there; it is not put inside the fruit.

Mr. DINGELL. Do they migrate in? Once they get on the outside of the fruit, do they migrate into the fruit?

Mr. PETERSON. No, sir; there is a minute residue on the outside, on the rind, very minute, which is admitted to be harmless.

Mr. DINGELL. Are any of these substances toxic in any amount?

Mr. PETERSON. No, sir, if there is no tolerance granted, if they put it on to such an extent that health is involved, we can't use it.

Mr. DINGELL. How about diphenyl or biphenyl?

Mr. PETERSON. They grant tolerances, but it is only in a minute amount.

Mr. DINGELL. In other words, some of them are toxic, but not in the amount used?

Mr. PETERSON. All ingredients are toxic to a certain extent, vinegar, pepper, shrimp, dandelion. Practically all are harmful if used in large quantities. That is what they told use.

Shrimp has a high toxicity.

Mr. DINGELL. You mention citrus, I assume, specifically, in your statement, but I notice you discuss other foods like tomatoes and potatoes.

Mr. PETERSON. Yes, sir. My statement is on behalf of the industry throughout the Nation. Citrus is only one. Of course, primarily that is my normal representation. But the groups throughout the Nation asked me to present this, and this is a composite statement of 27 or 28 organizations—apples, pears, melons, beans, tomatoes, cucumbers, and others.

Mr. DINGELL. I have just one more question. In the case of, let us say, citrus, melons, and so forth, there is no harm. But how about the case of apples, and then you cite green vegetables, tomatoes, yellow vegetables, sometimes potatoes, but you eat the hide on all of those fruits, the outside.

Mr. PETERSON. I didn't hear the question.

Mr. DINGELL. I said you eat the hide of everything here, except the citrus fruits and the melons, and so forth.

Mr. PETERSON. That is right. They wouldn't let you use them. The tolerance section is the thing that protects. In other words, unless the Department decides that in the manner and quantity of use it is harmless, we are precluded from using it under the other section.

But assuming that they determine that it is harmless, assuming they placed a new tolerance there, and the amount used is harmless,

still we must label it under this act. It is impractical to label a cucumber, a tomato, an orange, an apple, or a bean.

Mr. DINGELL. Thank you.

Mr. SCHENCK. Might I ask another question or two, Mr. Chairman?

Mr. WILLIAMS. Mr. Schenck.

Mr. SCHENCK. It is my understanding, Mr. Peterson, that these chemicals to which you referred are entirely on the outside of fruit.

Mr. PETERSON. Yes, sir.

Mr. SCHENCK. There are many stores which make, for instance, fruit juice, orange juice, by squeezing the whole orange in an automatic machine. Is there any danger of any chemical going into the juice so produced that will in any way endanger health?

Mr. PETERSON. No, sir, because in the opinion of the Food and Drug when they fix the allowance as to whether we can use it or not, that is taken into consideration.

In other words, we might assume in this all the way through it must be harmless before we can use it.

Mr. SCHENCK. At some of our other hearings, we learned that some of these pesticides and other chemicals are insoluble in water and, therefore, cannot be washed off. That gave rise to my question of when you squeeze the outside rind of the orange or the grapefruit, whether or not that does add to the juice so produced a chemical which is dangerous.

Mr. PETERSON. They have to determine it is harmless, or they only allow a minute amount, a tolerance, before we can use it.

Mr. SCHENCK. Under those conditions?

Mr. PETERSON. Yes.

Mr. SCHENCK. Thank you.

Mr. PETERSON. Throughout, we emphasize the fact that it must be harmless before we can use it.

Mr. WILLIAMS. I have one more question, Mr. Peterson, if you do not mind.

You indicated in response to a question by Mr. Dingell a moment ago that there is no intention or desire to use chemicals injected into the fruit itself in any way.

Mr. PETERSON. Yes.

Mr. WILLIAMS. The bill, H. R. 9521, as it is written, provides, at line 6:

> As used in this paragraph the term "chemical preservative" shall not include any pesticide chemicals when used in or on any raw agricultural commodity which is the produce of the soil.

In order to insure that none of these preservatives would be used in the food itself, what would be your reaction to taking the words "in or" out of the bill? How would that affect the bill in the final analysis?

Mr. PETERSON. As far as the knowledge I have of that particular section, that would not hurt us. The only thing is that we are afraid generally that while we don't inject it in, the absorption of a minute amount might be in there.

In other words, for instance, a potato might be a little different from an orange.

Mr. WILLIAMS. Is it your belief that that is the reason those two words were put in there?

Mr. PETERSON. Yes, sir; that is my thought. Because we have run into so many highly technical constructions in the food and drug, we are afraid that if we cure one thing, we run right up another alley.

Mr. WILLIAMS. You have had quite a bit of legislative experience. With your knowledge of this problem do you feel it would do damage to the bill to take those two words out and leave the bill reading "when used on any raw agricultural commodity?"

Mr. PETERSON. I am afraid of this, that you don't know whether it is going to be on or in. If you get into the rind of the thing, when is it on and when is it in? You see the point there. In other words, when is it in the fruit and when is it on? My colleague asked if we injected it in, which is different. But there may be a minute amount. When they say is it in or on, I am afraid of that. We tried to offset that.

Mr. DINGELL. As our chairman has pointed out to you, I think you can see that a number of members of the committee are concerned with the possibility of fruits and vegetables being injected with preservatives.

Mr. PETERSON. Mr. Brown, do you know of any?

Mr. BROWN. I am Edward Brown, and I represent the group for which Mr. Peterson is appearing.

We use that language because that is the language which is used in section 403 (k), which is the one with which we are dealing, and under which the food and drug ruling was originally made. Of course, as Mr. Peterson says, it is difficult to know what in or on means.

In the case of some vegetables, it is inevitable that some of these pesticides will penetrate into the inner part of the vegetable or the fruit, so we use this because it is a traditional usage in the statute under the section involved. Of course, we are not concerned here with the question of safety, because that is taken care of under the Miller pesticide chemicals amendment.

Mr. DINGELL. You can see the concern of the members of the committee that while we might agree, and I am not saying they will agree, as to the use of the stuff on the outside, at the same time, speaking for myself, I don't want anything coming out that is going to authorize somebody to run around and inject something into the fruits and vegetables and then not declare it.

Mr. BROWN. If the words "in or" were removed from this bill, it would make no difference as to the substance used. It would only affect the labeling. This bill affects only the labeling.

Mr. PETERSON. As an illustration, Mr. Chairman, in 403 (k), you can readily see that we don't know where in or on begins or ends.

Mr. SCHENCK. Mr. Chairman, it has been my impression from talking with some very well qualified members of the medical profession that when you put some chemicals and/or medicine on the skin of the human body, these chemicals or medicines in a very short time can be picked up in the blood stream itself. I should think that there would be an absorption here in various fruits that you could not avoid.

Mr. PETERSON. That is probably what will happen. When it says bears or contains, that they take that position even when you just put it in a pad, and it is minute.

The ruling of the Food and Drug Administration results from FDA's interpretation of section 403 (k) of the Food, Drug, and Cosmetic Act.

Under that section, a food which bears or contains a chemical preservative must bear labeling "stating that fact." There is a proviso to section 403 (8) which requires the Food and Drug Administration to exempt foods from the labeling requirement where compliance is impracticable.

This is to be accomplished by administrative regulations. Despite several written and oral requests, we have been unable to obtain relief under this proviso although we are convinced that we are entitled to such relief under the law.

We would like to offer for the record exhibits A and B, which show that we have exhausted our administrative efforts. You may not like to print them in the record, but I would like to leave them for you.

Mr. WILLIAMS. They will be accepted either for the files or for the record.

We will leave that to the will of the committee.

(The documents referred to follow:)

EXHIBIT A

UNITED FRESH FRUIT AND VEGETABLE ASSOCIATION,
Washington D. C., April 2, 1957.

Hon. GEORGE P. LARRICK,
Commissioner, Food and Drug Administration,
Department of Health, Education, and Welfare,
Washington, D. C.

DEAR MR. LARRICK: The attached material has been compiled by the organizations listed below for presentation to you at this time with a view to reconsideration of the Food and Drug Administration's position relative to the labeling of fresh fruits and vegetables treated with pesticide chemicals.

The presentation is in five parts:

I. A brief resume of the situation, as we see it;

II. Opinions and experiences of State agriculture and land grant college officials, reproduced here with their permission;

III. A partial list of pesticide chemicals now used on various fresh fruits and vegetables, to illustrate the extent to which labeling might be required under the current view of the Food and Drug Administration;

IV. Legal and practical aspects of the present situation;

V. Request for clarification or amendment of regulations.

The following organizations subscribe to this presentation, and have asked that their names be attached to it:

California Grape & Tree Fruit League, San Francisco, Calif.
Florida Citrus Commission, Lakeland, Fla.
Florida Citrus Mutual, Lakeland, Fla.
Florida Fruit & Vegetable Association, Orlando, Fla.
Grower-Shipper Vegetable Association, Santa Maria, Calif.
Grower-Shipper Vegetable Association, Salinas, Calif.
Idaho Grower Shippers Association, Idaho Falls, Idaho.
International Apple Association, Washington, D. C.
Main Potato Council, Presque Isle, Maine.
National Apple Institute, Washington, D. C.
National Council of Farmer Cooperatives, Washington, D. C.
National Grange, Washington, D. C.
National Onion Association, East Lansing, Mich.
United Fresh Fruit & Vegetable Association, Washington, D. C.
Vegetable Growers Association, Phoenix, Ariz.
Vegetable Growers Association of America, Washington, D. C.
West Mexico Vegetable Distributors Association, Nogales, Ariz.
Western Growers Association, Los Angeles, Calif.

Sunkist Growers, Inc., Los Angeles, Calif.
Pure Gold, Inc., Redlands, Calif.

It is anticipated that other interested organizations may notify you of their support of the viewpoint expressed in this memorandum.

Sincerely,

ALAN T. RAINS,
Executive Vice President.

(NOTE.—On this date, April 2, 1957, the American Farm Bureau Federation presented a copy of the following information to Commissioner Larrick. The Farm Bureau indicated it was fully in accord with the viewpoint expressed in this memorandum, and, in fact, that it had cooperated in its preparation.)

MEMORANDUM FOR THE FOOD AND DRUG ADMINISTRATION RELATING TO LABELING OF FRESH FRUITS AND VEGETABLES TREATED WITH PESTICIDE CHEMICALS

I. STATEMENT OF THE PROBLEM, AND IMPLICATIONS OF THE POSITION OF THE FOOD AND DRUG ADMINISTRATION

The Food and Drug Administration has informally taken the position that pesticide chemicals applied to fresh fruits and vegetables to inhibit mold and decay during storage and shipment are chemical preservatives within the meaning of the Federal Food, Drug, and Cosmetic Act and that hence such produce must be labeled to show that it bears or contains preservatives. It has, of course, not been the practice to so label fruits and vegetables treated with pesticides. No question of hazard to public health is involved since the chemicals in question can only be used after clearance by FDA under the pesticide residue amendment (the Miller Act).[1]

FDA bases its position upon section 403 (k) of the Food, Drug, and Cosmetic Act,[2] and upon section 1.12 (a) (3) of the regulation under that section. The regulation provides:

> "(3) The term 'chemical preservative' means any chemical which, when added to a food, tends to prevent or retard deterioration thereof * * *."

The fact that a tolerance or an exemption has been granted for a substance under the pesticide residue amendment does not, under the FDA view, affect the labeling requirement.

The FDA position was first made known with respect to the fungistat biphenyl, which is employed to retard decay of citrus fruits during shipment. A tolerance has been established for biphenyl under the pesticide residue amendment.

The ruling is also applicable to the use on citrus of sodium o-phenylphenate and ammonia (to the extent that ammonia leaves a residue), and to sulfur applied after harvest to various fruits and vegetables such as peaches, sweet potatoes, and other tubers. It is understood that FDA takes the same position with respect to fungicides and fungistats applied before harvest for their post-harvest effects. Tolerances or exemptions have been established for the above-named substances, except sulfur, which is generally recognized as safe for use and, therefore, is not subject to the pesticide residue amendment.

It is evident that the FDA view must logically affect, as well, other chemicals used for decay control such as copper compounds, wax (whether or not it contains a bactericide or fungicide), phenolic compounds, the soluble borates on vegetables, sodium o-phenylphenate on apples, pears, and other commodities, and still others, if a residue is present when the foods upon which they are used are shipped in interstate commerce. As new pesticide chemicals and new uses for old ones are developed, the area affected by the FDA position will be expanded.

At the present time, FDA does not require that fruits and vegetables treated with insecticides bear the preservative label. There is, however, no persuasive legal basis under the statute for distinguishing between insecticides and fungicides. Consequently, it is our considered view that, if FDA continues to pursue its present course, insecticides will eventually be regarded as preservatives subject to the labeling requirements. The same could well be true of chemicals commonly used as sprout inhibitors on potatoes and onions.

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[1] Public Law 518, 83d Cong., 2d sess., 21 U. S. C. 348.

[2] Section 403: "A food shall be deemed to be misbranded—(k) If it bears or contains any artificial flavoring, artificial coloring, or chemical preservative, unless it bears labeling stating that fact."

The use of pesticide chemicals on fresh fruits and vegetables has not, until recently, been construed by FDA as requiring the application of the preservative labeling requirement of the Food, Drug, and Cosmetic Act. The history of the preservative labeling requirement is linked with early campaign of Dr. Harvey Wiley against the use of chemicals to conceal the inferiority of processed foods, and against the use of chemicals which might be hazardous to the health of consumers. The chemicals affected by the FDA position are, to the contrary, employed to avoid the marketing of inferior products and may be used only if the absence of a health hazard has been shown pursuant to the procedures established under the pesticide residue amendment. Thus, it appears that the FDA view is an unwarranted extension of the purposes of the preservative labeling provision of the statute.

The labeling of fresh fruits and vegetables generally as containing preservatives is clearly impracticable in the light of the vast scope and complexity of the production and marketing of fresh fruits and vegetables, and the multiplicity of pesticides which might be used. In many cases several chemicals may be used upon a single fruit or vegetable.

Even if labeling were practicable, the imposition of a requirement that fresh fruits and vegetables bear a label declaration of the presence of chemicals may be expected to have a substantially unfavorable impact upon the sale of such produce, and hence, upon the economic future of all who deal with it commercially. The public generally has a fear of unfamiliar chemical nomenclature, often based on a simple lack of understanding of terms used, and the reasons for the use of such chemicals, and would hesitate to purchase produce labeled as bearing them. Inevitably, the use of new and useful chemicals would be adversely affected and the availability to the consumer of fresh produce in good condition would be reduced.

In addition, it is apparent that buyer resistance to farm products is undesirable, especially when use of the chemicals involved already has been thoroughly covered so far as safety and public interest is involved by the Pesticide Residue Amendment to the Food, Drug, and Cosmetic Act. Increased buyer resistance to fresh produce would, it is believed, result in making fresh produce less available to consumers, thus proving a detriment to the nutrition and health of the Nation.

These views are substantially and vigorously supported by State agriculture and land-grant college officials to whose attention this matter has come. These officials have expressed a real concern that the FDA position will have an adverse effect upon the consumption of fruits and vegetables in the United States for the reasons given.

The need for protecting fresh produce in storage and transit was underscored by the Secretary of Agriculture in an address November 16, 1954, when he said, "One-fourth of the value of strawberries shipped to market is lost through decay; one-fifth of the value of apples, one-sixth of the value of tangerines, one-seventh of the value of oranges, one-eighth of the value of grapes and grapefruit * * *. For vegetables, the situation is about the same; about one-fourth of the value of lettuce, peppers, and onions is lost in marketing; about one-fifth of the tomatoes, celery, and sweet potatoes."

Pesticide chemicals are being used to cut these staggering losses safely—in some cases as much as 85 percent—and thus enable the farm economy to deliver to consumers a greater quantity of healthful fresh produce of the high quality demanded by consumers today, and at lower prices than would be possible without them.

The position of the Food and Drug Administration with reference to the labeling of fresh fruits and vegetables treated with pesticide chemicals is believed to be unwarranted, since:

(1) It serves no useful purpose and is not necessary because public health is already protected under the Pesticide Residue Amendment to the Food, Drug, and Cosmetic Act;

(2) It will be difficult if not impossible to enforce practically, because of the vast scope and complexity of the production and marketing of fresh fruits and vegetables, and the multiplicity of pesticides which might be used;

(3) It may well disrupt and impede the entire marketing processes for these foods, causing hardship to producers and depriving consumers unnecessarily of the healthful fresh fruits and vegetables now available;

(4) It is not, in our view, based upon a sound interpretation of the statute.

PART II. STATEMENTS OF STATE AGRICULTURE AND LAND-GRANT COLLEGE OFFICIALS CONCERNING THE LABELING OF FRUITS AND VEGETABLES TREATED WITH PESTICIDE CHEMICALS

The following comments are representative of the many which have been received from interested State agricultural and land-grant college officials on this matter:

Dale H. Sieling, dean and director, College of Agriculture, University of Massachusetts, Amherst, Mass.

"The regulation that requires the labeling of fresh fruits and vegetables that have been treated with chemical preservatives for postharvest protection is of vital interest to our producers in Massachusetts.

"Since this regulation is concerned only with labeling and not with public health, we consider that with fresh fruits and vegetables it is unworkable, impractical to enforce, and will not inform the consumer as intended. In addition, it will add to the cost of basic food items.

"We agree that the present regulations of the Food, Drug, and Cosmetics Act adequately safeguard the health of consumers. If section 403 (k) were amended to except from the necessity for labeling, raw agricultural products (as defined in Public Law 518), which have been treated with pesticide chemicals or chemical preservatives, either before or after harvest, it would be in the best interests of both producers and consumers.

"This present regulation would affect both consumers and producers in this State. Labeling would increase the cost of fruits and vegetables to consumers but without adding to the value of the product. Producers in this State at present are not using many treatments that come under this regulation. However, if the interpretation of the meaning of chemical preservative should be broadened to include insecticides and fungicides applied before or after harvest, it would impose an almost impossible burden due to the complexity of the pesticide program so essential to the production of high quality produce.

"Since consumers generally are uninformed and disinterested in chemical names, their reaction to labeling would be either to ignore it completely or to be prejudiced against buying the product. Neither action is consistent with the intent of the regulation."

J. F. Short, director, Department of Agriculture, Salem, Oreg.

"In Oregon as well as in other fruit-producing areas, many pears and apples are dipped in a stop-mold solution and rinsed before packing, with only a minute quantity far lower than any tolerances for such materials remaining on the surface of the fruit.

"We recognize the impracticability of attempting to maintain such labeling of fresh fruits and vegetables throughout marketing channels to the consumer and the adverse public reaction that could be expected, with consequent possible reduction in present availability to the consumer of fresh fruit and produce in good condition.

"We cannot believe it was intended by the Congress that such infinitesimal residues on fresh fruits and vegetables should be labeled when applied to reduce mold and decay, any more than are such residues within established tolerances when applied for other purposes not mentioned in the act."

H. M. Harris, head, Department of Zoology and Entomology, Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa.

"It appears abundantly clear that any requirement that necessitated the labeling of fruit and vegetables, which had been treated with pesticides for post harvest protection as containing preservatives is impractical, difficult to enforce, and detrimental to the industry. No doubt, the imposition of such a requirement would have a profound influence on the acceptance of such agricultural products by the general public."

C. H. Blasberg, chairman, horticultural department, Vermont Agricultural Experiment Station, Burlington, Vt.

"For commodities which are not marketed in the ultimate consumer package, I fail to see how the Food and Drug Administration could accomplish their objective or even enforce the regulation. If cases of oranges have been treated with biphenyl to prevent their decay, how is the consumer to be advised? You might stamp each orange, but suppose the commodity happens to be lettuce, cabbage, spinach, etc., must each item be wrapped so a label may be attached?

"The Food and Drug Administration has an obligation to protect the health of the consumer. It would seem that the emphasis should be on prohibiting the use of compounds known to be harmful. I can see that requiring a label stating the product has had this or that chemical treatment would be impractical."

Dallas Rierson, director, New Mexico College of Agriculture and Mechanic Arts, Box 728, State College, N. M.

"However, it does strike me as being erroneous in requiring that fresh fruits and vegetables be labeled as having a preservative on their package. I see no reason why they should be labeled since these chemicals have been approved by the Food and Drug Administration. I further believe that if the use of preservatives is indicated, consumers would have a tendency not to buy them if the vegetables were so treated. I do not know what other people's reactions are, but when I notice the word 'preservative' on anything, I usually think of the inferior products being used and this is merely something to stabilize them."

Harold West, Idaho commissioner of agriculture, department of agriculture, 206 State House, Boise, Idaho

"Inasmuch as the Miller Act already establishes tolerances for the protection of the consuming public and further, that it is the responsibility of the Pure Food and Drug Administration to check all of the chemical used as pesticides and fungicides with the prime purpose of protecting the consuming public, we see absolutely no need for the suggested idea of requiring the listing of these items on the label."

Director Boyce, citrus experiment station, Riverside, Calif.

"Economic importance: Losses from postharvest decay of California citrus fruits would amount to approximately $8 million per year if control measures were not applied. Waxes containing fungicides improve the appearance and keeping quality by reducing water loss and spoilage, thus giving increased life in transit, storage, and in retail market.

"Difficulties of labeling fruit: It is impossible to label the fruit with the names of all the chemicals that are used during the packinghouse operations. The FDA requires the statement for each chemical that it is used as a preservative, viz., 'Sodium ortho phenylphenate plus hexamethylene tetramine used as a preservative.' If stamping each fruit is impractical a counter card bearing this information must be displayed at the point of retail sale. Even though the public may be made aware of the harmlessness of chemicals with established tolerances under the Miller amendment, many potential purchasers would not buy fruit because of an aversion to chemical treatments, even though this aversion is unwarranted. It is our opinion that, if the Food and Drug Administration continues to interpret section 403 (k) as presently indicated and actually enforces the labeling of commodities, the consumption of such commodities will be greatly reduced."

Prof. M. B. Linn, horticulture and plant pathology departments, University of Illinois, Urbana, Ill.

"There is, indeed, a question of definition involved. For example, fungicides sprayed on tomato fruit in the field to protect them against anthracnose or ripe rot. Research here has shown that this protection extends into the postharvest period. Are these fungicides then 'chemical preservatives'?

"There is no doubt that labeling of produce so treated would create consumer resistance to the purchase of such produce and the more labels required per package the greater the resistance. The vegetable industry as represented by the average small grower, is not in a healthy financial state and can ill afford to carry this additional burden."

J. S. Titus, horticulture and plant pathology departments, University of Illinois, Urbana, Ill.

"If it is decided that the use of preservatives must be designated on the container in which the fruit is sold, additional marketing expenses will result in the labeling of containers and in explaining to the public through advertising mediums that the sprays used are nontoxic and the nutritional value of the fruit is not reduced. All of these costs will increase prices of Illinois fruit without increasing the profit of the producer. Illinois peach growers, having suffered severe economic losses in recent years through low prices and adverse weather conditions, can ill afford these additional expenses and will probably object to such legislation."

L. B. Wilkins, associate extension horticulturist, Virginia Polytechnic Institute, Blacksburg, Va.

"If farmers were required to place a label on each container showing the different materials that have been used on the crop, many problems would be created. Farmers would have to make up labels for each crop and in some cases the same crop would require several labels which had been grown in different fields and received different treatments. In many cases vegetable crops are repackaged at packing sheds and they would lose their identity at this point. You would also have several farmers packing in the same shed and using different materials on their vegetables. It would be exceedingly difficult to administer any program of this kind in my estimation. You also have an added cost which is placed upon the farmer and at present the tendency of most buyers of vegetable crops is to obtain the produce at the cheapest figure.

"The use of chemicals is being recommended by the Extension Service and are being used by farmers to improve the quality of vegetables reaching the markets. If regulations were enforced requiring the farmer to label his produce showing the chemicals that had been used in the production of these crops, such requirement might be considered a restriction on the use of these materials. In many cases the quality of vegetables going to market could have been improved had the farmer used more chemicals to control insects which have damaged the quality.

"Having operated under the provisions of the Miller bill which sets up residue tolerances for most of the chemical insecticides for a period of time, we feel that this is enough restriction upon the farmer, it assures the consumer of adequate protection against the material, and any further restrictions or complications would tend to discourage farmers from growing vegetable crops.

"The production and marketing of vegetable crops is becoming more complex all the time. Any type of labeling or continuous identification through the market channels would certainly work a hardship not only on farmers but the handlers of fresh vegetables. At present, very few vegetables reach the consumer in the same package in which it was packed by the producer.

"In my opinion, consumers would refrain from purchasing vegetables which have been labeled as being treated with several different chemicals. Under the present regulations of the Miller bill consumers have nothing to fear as far as contamination from these chemicals are concerned. If the chemicals are not present on the vegetables in toxic amounts, there seems to be no justifiable reasons for placing such information on the package."

R. D. Lewis, director, Texas Agriculture Experiment Station, College Station, Tex.

"We feel that it is not necessary to label fruits and vegetables which have been treated with postharvest chemicals, because the Food and Drug Administration has established tolerances for these chemicals and the fruit and vegetables would be subject to confiscation if a poisonous residue was found. It is also felt that the postharvest chemicals should be considered in the same manner as the preharvest chemicals, for which labeling has never been required.

"We believe that there would be considerable consumer resistance to the purchase of produce labeled—treated with chemicals as a preservative—particularly if the names of the chemicals were required."

Nathan, Mayo, commissioner, the State of Florida Department of Agriculture, Tallahassee, Fla.

"As commissioner of agriculture, it has always been my aim and desire to promote the interests of the growers of fruits and vegetables in this State. It is conceivable to me that the enforcement of this regulation may cause considerable expense and trouble to the growers of fruits and vegetables in this State and it would appear that in view of the vast scope and complexity of the marketing of fresh fruits and vegetables, the problems raised in the practical enforcement of this regulation would be enormous and may have a considerable impact upon the sale of such products.

"As commissioner of agriculture, however, I would like to point out that I am also charged with the enforcement of the Florida food, drug, and cosmetic law which proposed to provide legislation which shall be uniform and administered so far as practical in conformity with the provisions of the regulations issued under the authority of the Federal Food, Drug, and Cosmetic Act. Section 500.11 (11) of the Florida food, drug, and cosmetic law is identical with that section of the Federal Food, Drug, and Cosmetic Act under which these regulations were promulgated and reads as follows—a food is deemed to be misbranded—'If it

bears or contains any artificial flavoring, artificial coloring, or chemical preservative unless it bears labeling stating that fact.' It is also true that we adopt as Florida regulations the regulations which are promulgated by the Federal Food and Drug Administration. I also recognize that the labeling of fresh fruits and vegetables as containing chemical preservatives might have an unfavorable impact upon the sale of such fruits and vegetables and thus adversely affect our economic future.

"In conclusion, I trust the Food and Drug Administration will reconsider this ruling as it will place the Department of Agriculture in Florida in a very embarrassing position. In fact, we have not the manpower at present or funds to do the tremendous job as it should be done."

George H. Ding, director, College of Agriculture Experiment Stations, University of Georgia, Athens, Ga.

"In conclusion, I would like to say that we are in full accord with the purposes and intent of the Miller amendment and would not like to see this act weakened in any respect. However, we do not believe that the labeling interpretation by the FDA is necessary or desirable. Adequate provisions for the protection of the public are contained in the tolerance requirements of the Miller bill if properly enforced. Furthermore, the Miller bill provides for the approval of the United States Department of Agriculture before any insecticide or fungicide can be approved for use on fresh fruits and vegetables. This provision should exclude any fungicide which the USDA might think would be dangerous to human health."

R. L. Lovvorn, director of research, North Carolina State College, School of Agriculture, Raleigh, N. C.

"There would undoubtedly be a reduction in sales of products labeled "Treated with (stated chemical) as a preservative." How much reduction would occur and the period of time it would continue would only be a guess. However, it could seriously affect the market for peaches, for only a moderate consumer resistance could result in a market collapse and disaster for the growers.

"Other fruits and vegetables that were required to be labeled would be affected on the market similarly to peaches.

"Our opinion is that this new interpretation of the regulation regarding chemical preservatives is not justified, that its application is impractical and would result in added expense to growers and consumers, that it would result in economic disaster to some growers. If the public was not already well protected against possible hazards to health by compliance with regulations under the Miller Act, our opinion would be that necessary action to protect the public health should be taken. At this time, we have no evidence that the labeling of fruits and vegetables as treated with a preservative is needed, desirable, or would serve any useful purpose."

Lippert S. Ellis, dean and director, University of Arkansas, College of Agriculture and Home Economics, Fayetteville, Ark.

It is really rather difficult to know where such a labeling system would stop. Any fungicide applied to prevent field infection of marketable plant parts might be placed in the label-required class. That would cover a large part of our spray and dust programs. The next step would be to demand labels for plants fertilized with chemicals.

"We can't say how badly our growers would be hurt by this ruling, but we are sure they will be hurt, and since the use of these materials is already controlled by tolerance regulations we feel that they would be needlessly hurt."

PART III. LIST OF SOME PESTICIDE CHEMICALS USED ON VARIOUS FRESH FRUITS AND VEGETABLES

Attached is a comprehensive but by no means complete list of fungicides used to protect various fresh fruits and vegetables against micro-organisms which cause decay during transportation and storage. In addition to the pesticide chemicals listed, others are also used. Likewise, some crops not included in the review are treated with fungicides for postharvest protection. However, the examples given will serve to indicate the complexity and impracticability of attempting to label fresh fruits and vegetables which have received fungicidal treatments.

It is common practice in packing plants to include a sanitizing agent in the wash water. The hypochlorites are frequently used for this purpose. Inasmuch

as the resultant residues, sodium chloride and calcium chloride, would probably not be considered as preservatives within the meaning of section 403(k) of the Federal Food, Drug, and Cosmetic Act, no references to these fungicides are made in this presentation.

It is also common practice to include a bactericide or fungicide in the waxes which are applied to various fruits and vegetables. This practice is noted in the review only in connection with a few commodities, but its use is rather widespread. The pesticide chemicals employed for this purpose would appear to be in the same category as the other fungicides applied directly to the produce and, therefore, subject to the same labeling requirements.

There is also a question as to whether the wax itself would fall within the present interpretation of section 403 (k) inasmuch as one of the reasons for using it is to prevent or retard deterioration of the produce.

Apples

1. Sodium o-phenylphenate; to control decay. United States Patent issued in 1936. Used extensively in the Northwest. Twelve million boxes of apples and pears were treated with this chemical in the Pacific Northwest during the 1952 season; 18 to 20 million boxes in 1953, and 20 to 22 million boxes in 1955.

2. Sodium chloro-2-phenylphenate; to control decay. Used since 1948 in the Pacific Northwest but now largely replaced by sodium o-phenylphenate.

3. Mineral oil; to control scald. Oil impregnated papers used as wrappers or shredded and distributed through the box.

4. Carbon dioxide; to control decay. Used on stored apples, to lengthen the storage life, inhibit decay and prevent low-temperature injuries such as brown core, soggy breakdown, and soft scald. In December 1956, 950,000 bushels were so treated. The practice is increasing.

5. Captan; preharvest—to prevent development of apple scab in storage. Used for several years.

6. Sulfur; Preharvest—to prevent development of apple scab in storage. Used for several years.

7. Ferbam; Preharvest—to prevent development of apple scab in storage. Used for several years.

Asparagus

1. Nitrogen trichloride; used to a limited extent as a fumigant to reduce decay.

Cherries

1. Carbon dioxide; to control decay. Used in refrigerator cars. Most cars of sweet cherries from the Pacific Northwest and from California are so treated.

Citrus

1. Borax; to control stem-end rot and green mold decay. Treatment came into general use about 1925. Formerly used on a large percentage of the citrus crop but now used to a lesser extent because of the introduction of other treatments. Sometimes used in combination with other treatments.

2. Boric acid; to control stem-end rot and green mold decay. Used alone or in combination with borax. Use declining in favor of other treatments.

3. Sodium metaborate; to control stem-end rot and green mold decay. Use declining in favor of newer treatments.

4. Nitrogen trichloride; to control various postharvest diseases of oranges and lemons, such as blue and green mold and stem-end rot. Treatment introduced in 1936. Formerly used extensively on the west coast, and to a lesser extent, in other parts of the country. Has been largely supplanted by other treatments. Decay of oranges stored 3 to 4 weeks was reduced 50 to 75 percent by treatment. Treated lemons developed only 13 percent decay in 2 weeks, while untreated lemons developed 70 percent decay. Sometimes used in combination with other fungicidal treatments.

5. Diphenyl; to control blue and green molds and stem-end rot. Used in impregnated wrappers, pads, or liners packed in boxes or cartons. Use of diphenyl wraps adopted about 1940. Paper box-liners impregnated with diphenyl in wooden crates, fiberboard cartons treated on the inner surface with diphenyl, and impregnated paper pads as inserts in fiberboard cartons were later developments. The use of diphenyl for treatment of lemons was commercially introduced in April 1951. By April 1953, nearly 80 percent of all lemons sold fresh were so treated. Citrus shipments to the Army Quartermaster must have diphenyl-treated crate liners. A large part of the citrus crop is now shipped in

packages with either impregnated liners or pads. One reported test showed that oranges wrapped in diphenyl wraps and stored for 18 weeks had only 2 percent of decay while those of untreated wraps were a total loss. Sometimes used following other fungicidal treatments.

6. Sodium o-phenylphenate; to control blue and green molds and stem-end rot. Normally used in conjunction with hexamethylenetetramine. Patent on use was granted in the United States in 1936. Now used to some extent in all citrus-producing areas of United States. Used as a dip, in the wax emulsion and/or the dye solution of the color-add process applied to the fruit. Sometimes used in combination with other treatments.

7. Ethylene dichloride, and trichlorethane ("Skinner gas"); to control decay. This method was patented in 1951 and soon found commercial application. It is used by some packinghouses for de-greening citrus fruit as well as for decay control. Used in fumigation room or by introducing into the loaded cars and trucks ready for shipment.

8. Sodium carbonate; to control decay of lemons and oranges. In use over 30 years.

9. Copper sulfate; to control brown rot of oranges and lemons.

10. Potassium permanganate; to control brown rot of lemons and oranges.

11. Salicylanilid; to control stem-end decay. Treatment patented in 1951. Used commercially that year on tangerines. By 1955, over 2 million boxes of citrus fruits had been commercially treated. The treatment may be combined with the process of waxing.

12. 2,4-D; primarily on lemons to prevent darkening of the fruit buttons and to control alternaria decay. Used on lemons in California since 1948. Most lemons placed in storage are treated with 2,4-D or 2,4,5-T.

13. 2,4,5-T; primarily on lemons to prevent darkening of the fruit buttons and to control alternaria decay. Used on lemons in California since 1948. Most lemons placed in storage are treated with 2,4-D or 2,4,5-T.

14. Pine oil (terpineol); to control decay. Used in fruit wraps. Patent issued in 1948.

15. Trisodium phosphate; to control brown rot of oranges and lemons.

16. Ammonia; for the control of blue and green mold. A recent development.

Cucumbers

1. Nitrogen trichloride; for decay control. Used only to a limited extent.

2. Bactericide or fungicide in wax; to control rot, prolong shelf life. This treatment is increasing. It is estimated that it will soon be used on at least 50 percent of the cucumber crop grown in Massachusetts, which is valued at $350,000.

Eggplant

1. Nitrogen trichloride; for decay control. Used only to a limited extent.

Grapes

1. Sulfur dioxide; for control of gray mold decay and to prevent stems and cap stems from turning brown during storage and transit. Use developed in 1925. Practically all grapes stored in California or shipped from there are fumigated with sulfur dioxide. Some years, gray mold has caused 40 percent rot in grapes stored without fumigation.

2. Sodium disulfite; to control gray mold rot. Added to pads or sawdust in the package. Most sawdust packed grapes so treated.

Melons

1. Nitrogen trichloride; to control various postharvest diseases on cantaloups. Reduces decay one-half to two-thirds as compared to untreated melons. Previously used on western melons but use now declining.

2. Borax; to control decay on cantaloups. Used only to a limited extent in recent years.

3. Carbomates; to control decay on cantaloups.

4. Copper sulfate; to control stem-end rot of watermelons. Applied to freshly cut stem ends after loading in railroad car or truck. Practice developed in 1922 and widely used.

5. Bactericide or fungicide in wax, to protect against decay. Widely used in large volume producing areas.

Onions

1. Nitrogen trichloride; for decay control. Used as a fumigant. Limited usage.

Peaches

1. Ethylene dichloride and trichlorethane; to control decay. Used as a fumigant. Treatments introduced in late 1940's. Limited use.
2. Sulfur; to control brown rot. Used immediately preharvest and/or postharvest during the grading operation. The postharvest application has been in use about 25 years. It was formerly used quite generally but is now declining in favor of other treatments and practices. The preharvest application is still practiced extensively in many areas, e. g. 80 percent of the peaches commercially grown in Massachusetts are now so treated.
3. Sodium o-phenylphenate; to control mold. Value demonstrated in limited field tests by Federal and State agencies. No record of commercial usage.
4. Captan; preharvest—to prevent rotting during the market period. A comparatively new treatment that is increasing in use. About 20 percent of the peaches grown in Massachusetts are now so treated.

Pears

1. Copper resinate; to prevent spread of botrytic rot. Used in impregnated paper wrappers. Copper-treated wrappers for pears were introduced about 1931. Sometimes used as copper resinate-oil impregnated wrappers to control both gray mold decay and scald on Anjou pears. Most pears from the Northwest are wrapped in copper impregnated wrappers.
2. Sodium o-phenylphenate; to control decay. Use patented in 1936. Used extensively in the Northwest. It is estimated that 20 to 22 million boxes of apples and pears were treated in the 1955 season.
3. Sodium chloro-2-phenylphenate; to control decay. In commercial use by 1948 but now largely replaced by other treatments.

Peppers

1. Nitrogen trichloride; to control decay. Has been used extensively in Southwest and West.
2. Bactericide or fungicide in wax; to control rot, prolong shelf life. This treatment is increasing. It is estimated that it will soon be used on at least 50 percent of the peppers grown in Massachusetts, which crop is valued at $460,000.

Pineapples

1. Benzoic acid; to prevent black rot decay. Applied as an alcoholic solution by brush to freshly cut butts. Recommended in USDA Circular 511 of 1939. Used only to a limited extent.

Squash

1. Nitrogen trichloride; to control decay. Used only to a limited extent.

Strawberries

1. Ethylene dichloride and trichlorethane ("Skinner gas"); to control decay. Used only to a limited extent.
2. Captan; preharvest, to reduce loss from gray mold. Used in many sections of the country. About 20 percent of the strawberries grown in Massachusetts are treated. This crop is valued at $680,000.
3. Carbon dioxide; to control decay. Dry Ice added to loaded refrigerator cars. Widely used on shipments from California.

Sweet Potatoes

1. Borax; to control black rot and rhizopus rot and for prevention of soft rot. Commercial use started in the forties. Used only to a limited extent.
2. Sulfur; to reduce decay fungi.

Tomatoes

1. Nitrogen trichloride; to control various postharvest diseases. Treatment introduced during the forties. Has been used to a considerable extent in the Southwest and West.
2. Borax; to reduce decay. Use has declined.

PART IV. LEGAL AND PRACTICAL CONSIDERATIONS

Legislative record

Insecticides and fungicides applied to fruits and vegetables before harvest are, in general, not regarded by the Food and Drug Administration as preservatives for the purposes of section 403 (k) of the Food, Drug, and Cosmetic Act. Insofar as uses for postharvest protection are concerned, a distinction is made

by FDA between pesticides which retard the spoilage of fruits and vegetables resulting from the action of bacteria and fungi, and those which control or destroy insects. These appear to be difficult lines of demarcation to rationalize since some pesticides serve both purposes and since it is immaterial, as a practical matter, whether the deterioration against which pesticides afford protection results from the attack of insects, from the presence of fungi, or, indeed, from the presence of insect excreta which may result in such deterioration.

It has been stated by FDA that "when revised food and drug legislation was being considered by the Congress from 1932 to 1938, there was a strong desire by consumers for labeling on foods that declares the presence, among other things, of any added chemical preservative, even though it were present in safe quantity. As a result, section 403 (k) was written into the present Food, Drug, and Cosmetic Act." [3]

We do not know to what portion of the legislative record of the 1938 act this statement might refer. No provision requiring labeling stating the presence of a chemical preservative appeared in the bills designated as S. 1944 (1933), S. 2000 (1934), or S. 2800 (1934), which were considered by the Congress in the years indicated. Such a provision first appeared in S. 5, introduced in the 74th Congress (1935). It was inserted by the Senate committee as section 302 (k). No committee report on the bills considered in the 74th and 75th Congresses and finally enacted in 1938, gives any indication of the scope of the provision. A review of the debates in Congress and hearings before the House and Senate committees revealed no specific reference to either the scope of the provision or to consumer representations as to what consumers believed its scope should be.

From the information available to us, therefore, we must conclude that the reference in Mr. Harvey's letter to the desire of consumers for a declaration of the presence of chemical preservatives in foods is not a part of the legislative record. It does not seem, therefore, to furnish a persuasive reference as an aid in the interpretation of section 403 (k).

In fact, it is noted that Mr. Harvey does not state that consumers desired that a distinction be made, in the labeling requirement, between residues of chemicals which retard rotting and those which destroy insects, or between certain preharvest and postharvest uses of fungicides. It is hardly conceivable that consumers, even those who were organized to present to Congress their views on food and drug legislation, were in a position to make the kind of distinctions which have been discussed. If it is of concern to consumers to know of the presence of residues of chemicals which protect food against deterioration, it seems reasonable to assume that such concern would extend to all protective chemicals, not just a particular kind of chemical or one which is applied for postharvest rather than for preharvest protection.

We believe that the present interpretation of the statute and regulations is essentially a new one which is not consistent with the general practice which FDA has followed in the past. This important point is demonstrated by the presentation in part III of this memorandum.

In part III is set forth a list of some important and widely consumed fruits and vegetables upon which fungicides or fungistats, or both, are used to protect the produce during storage and shipment. Many of these chemicals have been used for this purpose for spans of years which reach back to the period preceding the enactment of the Food, Drug, and Cosmetic Act of 1938. Only recently has any effort been made to require a chemical preservative label declaration under the 1938 act on account of the presence on such foods of residues of these chemicals. Even now, only a few of them have been singled out as calling for label declaration under section 403 (k).

A number of fruits and vegetables are listed as examples, but the list does not purport to be a complete one. Upon many of these foods more than 1 chemical is used, upon several any of 4, 5, 6, or 7 may be used, and fruit in one category may be treated from time to time with any one or more of some 15 or 16. The problem becomes particularly acute when mixed lots of commodities treated with different chemicals are involved.

Thus, enforcement of the preservative labeling requirement as now proposed by FDA would have involved, over varying periods of years, the labeling of apples, citrus, melons, peaches, pears, cucumbers, grapes, strawberries, and tomatoes, among other fresh fruits and vegetables, with a statement to the effect that those foods had been treated with one or more specified chemicals to protect them.

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[3] Letter from Deputy Commissioner John L. Harvey to Dr. W. C. Jacobson, dated December 7, 1956.

Of course, no such requirement has been enforced and only with respect to a few of these chemicals has FDA indicated that it considers that section 403 (k) is applicable.

Thus, without adverting to the characteristics of particular fungicides or fungistats which properly exclude them from the category of preservatives under the statute we find that there is a historical pattern which appears to exclude all such chemicals on fresh produce from the preservative labeling category, in the contemplation of the Food and Drug Administration. This conclusion is strengthened by the circumstance that residues of fungicide and fungistats used for preharvest protection are not regarded as requiring labeling and that no insecticides, whenever used, are considered within the requirements of that section.

At this point it may be noted that we are dealing only with the use of pesticides upon produce of the soil. We are not dealing, therefore, with the question of the use of chemicals such as antibiotics (whether or not they are economic poisons and pesticides by legal definition), used upon raw agricultural commodities other than fruits and vegetables. The alternative courses of action by FDA which we propose herein takes account of this distinction.

Administrative precedent

It is an accepted principle of statutory construction that, upon judicial review, official or formal regulations interpreting a statute are regarded as persuasive by the courts, unless they are clearly wrong. The degree of authoritative weight will, of course, vary with the kind of question presented, judicial confidence in the agency involved, or other circumstances which may either induce judicial self-restraint or impel the court to substitute its interpretation for that of the agency. Contemporaneous construction of a statute by those to whom its administration is entrusted may give the official regulation especial weight before a reviewing court. Longstanding interpretations undisturbed by the Legislature are under some circumstances regarded as having legislative approval.[4]

Interpretative bulletins or decisions not promulgated as formal regulations are also entitled to weight upon judicial review. This is peculiarly true where the interpretations involve "contemporaneous construction of a statute by the men charged with the responsibility of setting its machinery in motion * * *" *Norwegian Nitrogen Co.* v. *United States* (288 U. S. 294, 315 (1940)); *Overnight Motor Transportation Co., Inc.* v. *Missel* (316 U. S. 572, 581, n. 17 (1942)).

The pertinent regulation under section 403 (k) of the Food, Drug, and Cosmetic Act interprets the term "chemical preservative" to include any chemical which tends to prevent or retard deterioration of a food to which it is added. The regulation is, of course, entitled to weight upon judicial review as a construction of the statute by officials charged with its enforcement, under the principles which are above outlined. We now find, however, that the regulation is itself informally construed in such a manner as to embrace as chemical preservatives certain pesticides used on raw agricultural commodities which tend to prevent or retard deterioration of the food, and to exclude others. Yet, as we have shown, some of those pesticides now regarded as chemical preservatives, and others which have the same effects, have for many years been used on raw agricultural commodities without application by FDA of the preservative labeling requirement.

Thus, we are confronted, in part, with what the courts have sometimes referred to as a "negative construction" of the statute and the regulation. Such a construction itself may be given weight by the courts upon judicial review. Thus, the Supreme Court of the United States said, in *Federal Trade Commission* v. *Bunte Bros.* (312 U. S. 349 at 352 (1941))—

> "* * * just as established practice may shed light upon the extent of power conveyed by general statutory language, so the want of assertion of power by those who presumably would be alert to exercise it, is equally significant in determining whether such power was actually conferred."

In the case from which this quotation was taken the Court held that the Federal Trade Commission lacked jurisdiction over a certain intrastate practice which, the Commission had found, constituted unfair competition with persons engaged in interstate commerce. One of the bases for the Court's conclusion that Congress had not granted the claimed jurisdiction, as the quotation above shows, was the fact that the Commission had not attempted to exercise such jurisdiction for many years prior to the institution of the case.

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[4] These general principles require no detailed documentation. An authoritative discussion of them is found in Davis, Administrative Law (1951), pp. 200–206.

The Court adopted a similar approach in *Federal Power Commission* v. *Panhandle Eastern Pipeline Co., et al.* (337 U. S. 498 (1949)), where the Commission sought to exercise alleged authority to regulate leases of gas acreage. The Court stated—

> "The district court found as a fact, and the finding is undisputed by the Commission, that, 'It has been the practice in the natural gas industry for companies to trade freely in gas leases, and the Commission has never heretofore asserted the right to regulate transfers of such leases.' Thus for over 10 years the Commission has never claimed the right to regulate dealings in gas acreage. Failure to use such an important power for so long a time indicates to us that the Commission did not believe the power existed. In the light of that history we should not by an extravagant, even if abstractly possible, mode of interpretation push powers granted over transportation and rates so as to include production" (337 U. S. 498 at 513, 514).

In *Chapman* v. *El Paso Natural Gas Company* (D. C. Cir., 204 F. 2d 46 (1953)) the Secretary of the Interior attempted to assert authority to impose specific conditions, not detailed in the Mineral Leasing Act of 1920, upon the grant under the act of a right-of-way to a pipeline company to operate as a common carrier. The court of appeals stated—

> "It is significant, also, that for 31 years the Secretary of the Interior has made no such extensive effort at regulation, thus leaving at least a question that he did not consider the authority to exist" (204 F. 2d 46 at 51).

The court cited the *Bunte* and *Panhandle* cases above mentioned.

There are decisions of State courts to the same effect, for example, *Richfield Oil Corporation* v. *Crawford* (249 P. 2d 600 (1952)), where the Supreme Court of California was called upon to determine whether section 3600 of the Public Resources Code of California required that the producting interval of an oil well as well as its surface location be not less than 100 feet from the boundary of the plot upon which the well was to be drilled. The State oil and gas supervisor had for 19 years consistently interpreted the statutory restriction to apply only to the surface location of a well. The court commented—

> "Since the supervisor has maintained a consistent administrative policy for many years, the oil industry in this State has undoubtedly relied upon that policy and expended substantial sums of money in the belief that the supervisor's interpretation of section 3600 is correct. Although failure to enforce statutes of this State will not estop a State agency from their subsequent enforcement * * * past administrative action is evidence of the limits of the power to act, see *Federal Trade Commission* v. *Bunte Bros.* (312 U. S. 349, 352, 61 S. Ct. 580, 85 L. Ed. 881); *Pacific Tel. & Tel. Co.* v. *Public Utilities Comm.* (34 Cal. 2d 822, 831, 215 P. 2d 441); (2 Southerland, Statutory Construction 3d ed.) section 5106, particularly when a statute is reenacted without change in the light of a settled administrative interpretation" (citing cases) (249 Cal. 2d 600 at 604).

If the legislative record were inconsistent with the long-standing construction by FDA of section 403 (k) and the regulation thereunder, different considerations would be involved. But we have pointed out that no such inconsistency has been found in the record. FDA was certainly aware that many of the fungicides named in part III of this memorandum were being used on fruits and vegetables for post-harvest protection. The fact, therefore, that since 1938, FDA has not attempted to apply section 403 (k) with respect to fruits and vegetables bearing residues of fungicides for post-harvest protection indicates that the Administration did not interpret that section as being applicable to such foods.

This aspect of the situation is emphasized by the fact that FDA has taken affirmative steps to enforce the preservative labeling requirement of section 403 (k) with respect to foods generally, other than fresh fruits and vegetables bearing pesticidal residues. Our position rests, therefore, not alone in the "negative construction" doctrine. It is strengthened, it appears to us, by the positive indications of a zealousness to apply the labeling requirements of the section in question.

The question of impracticability

We do not propose to discuss in detail at this time the question of the impracticability of labeling particular kinds of fruits and vegetables as bearing chemical preservative residues, because of their individual characteristics. It seems sufficient on this point to refer to the picture presented in part III of this memorandum. We have already noted, in connection with our discussion of the FDA pattern of application of section 403 (k), that some commodities in mixed

lots would have to bear the names of more than 1 chemical, some as many as 4 or 5 and perhaps others more than 4 or 5. The idea of labeling them in the manner FDA would require, is clearly unrealistic and impracticable, whether the labeling be upon or attached to the food or its container or upon placards to be displayed in retail stores.

One aspect of the question of impracticability is forcibly noted by Mr. L. B. Wilkins, of the Virginia Polytechnic Institute, who states (see pt. II of this memorandum)—

> "The production and marketing of vegetable crops is becoming more complex all the time. Any type of labeling or continuous identification through the market channels would certainly work a hardship not only on farmers, but the handlers of fresh vegetables. At present, very few vegetables reach the consumer in the same package in which it was packed by the producer."

Even if only one chemical were involved in the case of each fruit or vegetable, the necessity of continuous identification from producer to consumer of a particular chemical among the several which may be available for use would present a formidable and quite probably an impossible task. When several are or may have been used upon a particular commodity, the problem exceeds practicable limits of compliance with the FDA view. For example, if the produce of several farmers is mingled in a single bulk shipment to market, we do not believe that the consumer can be truthfully informed of what chemical residues are present on the various portions grown in different locations by different producers.

It is not feasible to detail the different methods of marketing of fruits and vegetables which would be affected by the labeling requirement in question, or to foresee all of the difficulties which its imposition would generate. Some of these difficulties are, however, effectively brought out in the statements of State agriculture and college officials set out in part II of this submission.

The use of a placard in retail stores has been suggested as a possible method of compliance with the FDA interpretation of section 403 (k). It seems certain, however, that even if the problem of identifying the chemical or chemical residues upon each article were solved, the constant shift of fruits and vegetables within the retail establishment would inevitably result in misinforming the consumer rather than informing him. It seems abundantly clear that store managers and employees are not going to keep the applicable placard in its proper position with respect to each food. This aspect of the problem stands entirely aside from the question of the effect upon consumers of being confronted with a statement that several listed chemicals unknown to them have been used upon the food as preservatives. It must also be remembered that, regardless of the method of declaration, residues of chemicals other than those declared are also present on the food and that the consumer is given no indication of this because the undeclared chemicals are insecticides or were applied before harvest.

Nevertheless, if the storekeeper shifts the placard or the food from one place to another, he may be subjected to criminal prosecution for violating the law by misbranding the food while it is being held for sale, either because the placard no longer accompanies the food for which it was designed or because, after the change of position, it accompanies a food or foods which bear no chemicals, or chemicals other than those named on the placard. It is a violation of the law either to use the wrong placard or to use no placard where one is required. If the retailer is dealing with a mixed shipment of several foods or of the same kind of food obtained from different sources, he would be faced with an impossible problem of labeling.

In view of the background above considered, even if only a single food and a single, identified chemical were involved, the propriety of an interpretation which might result in such a prosecution would be open to substantial question. Where many chemicals and many foods are involved and the offenders are inevitably going to number in the thousands, the validity of the interpretation is even more dubious.

The shipper himself can avoid legal action by labeling the container or inserting the placard, or both, but as a practical matter, the conclusion is inescapable that storekeepers throughout the country will be unable to avoid violation of the act as interpreted by FDA either through failure to use a placard or by using the wrong one. It must be emphasized that the construction of a statute imposing criminal penalties in a manner which will necessarily result in such widespread violations cannot be regarded as valid unless it is clearly

required by the language of the statute. We believe that we are not here dealing with such a case.

PART V. REQUEST FOR CLARIFICATION OR AMENDMENT OF REGULATIONS UNDER SECTION 403 (K) OF FEDERAL FOOD, DRUG, AND COSMETIC ACT

On the basis of the foregoing considerations, we respectfully request that the Food and Drug Administration take the following action:

A. Issue an interpretation of section 1.12 of the regulations under section 403 (k) of the Federal Food, Drug, and Cosmetic Act, which would exclude from the term "chemical preservative," pesticide chemicals in or on raw agricultural commodities which are produce of the soil.

B. If the Food and Drug Administration does not adopt such an interpretation and believes that a new regulation is required, we request that section 1.12 of the regulations under section 403 (k) of the Federal Food, Drug, and Cosmetic Act be amended by substituting a comma for the period at the end of paragraph (3) of subsection (a) of such section, and adding to such paragraph (3) the following: "or pesticide chemicals in or on raw agricultural commodities which are produce of the soil." Paragraph (3), as so amended, would read as follows (new matter in italic):

> "(3) The term 'chemical preservative' means any chemical which, when added to food, tends to prevent or retard deterioration thereof; but does not include common salt, sugars, vinegars, spices, or oils extracted from spices, or substances added to food by direct exposure thereof to wood smoke, *or pesticide chemicals in or on raw agricultural commodities which are produce of the soil.*"

For the reasons above stated we believe that either the proposed interpretation or the suggested amendment would be consistent with FDA practice in the past, and would be a sound and proper construction of section 403 (k).

C. If the Food and Drug Administration does not accede to either of the above stated requests we ask that a new paragraph (f) be added to section 1.12 of the regulations reading as follows:

> "(f) A raw agricultural commodity which is produce of the soil shall be exempt from the requirement of section 403 (k) of the Act that its labeling state that it bears or contains a chemical preservative, to the extent that such requirement may be applicable because of the presence of a pesticide chemical or chemicals in or on such commodity."

We consider the preservative labeling requirement inapplicable to produce of the soil bearing pesticidal residues, as heretofore indicated. If, however, the Department takes the contrary view, it is submitted that, upon the grounds which have been set forth, such produce should be exempted from that requirement under the proviso to section 403 (k) that "to the extent that compliance with the requirements of this paragraph is impracticable, exemptions shall be established by regulations promulgated by the Secretary."

The adoption of one of these proposals would have these consequences, which seem logical as well as legally and historically sound—

1. It would place all pesticides used on raw agricultural commodities which are produce of the soil upon the same basis insofar as section 403 (k) is concerned. Currently some pesticides applied to growing plants are regarded by FDA as chemical preservatives (for example, fungicides and fungistats used for postharvest protection) while others are not so regarded (those used to control diseases of growing plants); some applied after harvest apparently are considered preservatives (those used for their fungicidal and fungistatic effect) while others (those used as fumigants, for their insecticidal effect) are not.

2. The anomalies of this position are evident. Thus, a pesticide used to control disease in a growing plant is not considered subject to section 403 (k) although it may result in a residue with postharvest fungicidal effects, whereas its use for the purpose of postharvest fungicidal protection would classify it as a chemical preservative. Similarly, a pesticide employed as an insecticide apparently is not considered a chemical preservative, although it may also directly or indirectly inhibit mold growth or decay.

This disparity of results seems to us untenable under section 1.12 (a) (3) of the present regulation since each such use, in the words of the regulation "tends to prevent or retard deterioration" of the food just as much as does any of the other uses.

The adoption of proposal B or C, while eliminating these anomalies, would formalize the status of those pesticides which are now regarded by FDA as excluded from the definition of "chemical preservative" without any provision

in the regulation to that effect and with no exemption on the ground that labeling is impracticable.

3. Any of the three proposals, if adopted, would promote consistency with the existing specific exclusions from the definition of "chemical preservative" of "common salt, vinegars, spices or oils extracted from spices, or substances added to food by direct exposure thereof to wood smoke." These exclusions were evidently made by the regulation because such articles have not been traditionally regarded as chemical preservatives, although they might fall within a literal interpretation of that term and are not excluded by section 403 (k) itself. It seems clear to us that pesticide chemicals belong in that category for like reasons. FDA has recognized that fact with respect to some pesticide chemicals. Logically they all belong together for this purpose.

4. Any of these proposals would be in the interest of consumers, growers, and shippers since it would avoid the discouragement of research for and the use of new and more efficient pesticides and would eliminate the danger, which we and many interested State officials believe inheres in the preservative labeling requirement in question, that the consumption of fruits and vegetables would be discouraged by such a requirement.

EXHIBIT B

Washington, D. C., July 5, 1957.

Hon. GEORGE P. LARRICK,
Commissioner, Food and Drug Administration,
Department of Health, Education, and Welfare,
Washington, D. C.

DEAR MR. LARRICK: There is enclosed a petition for amendment of regulations under section 403 (k) of Federal Food, Drug, and Cosmetic Act and for a public hearing upon the question of such amendment.

The shippers, retailers, and others listed in this petition have authorized me to file this petition on their behalf.

Your prompt action will be appreciated.

Very truly yours,

ALAN T. RAINS,
Executive Vice President.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

FOOD AND DRUG ADMINISTRATION

PETITION FOR AMENDMENT OF REGULATIONS UNDER SECTION 403 (k) OF FEDERAL FOOD, DRUG, AND COSMETIC ACT, AND FOR A PUBLIC HEARING UPON THE QUESTION OF SUCH AMENDMENT

This is a petition for the amendment of certain regulations under section 403 (k) of the Federal Food, Drug, and Cosmetic Act (21 U. S. C. 343 (k)), relating to the labeling of raw agricultural commodities bearing pesticidal residues, and for a public hearing upon the question of such amendment.

The petition is filed pursuant to section 4 of the Administrative Procedure Act (21 U. S. C. 1003), on behalf of the parties hereinafter listed, including shippers and retailers of fresh fruits and vegetables, each of whom is an interested person within the meaning of such section 4.

APPLIANCE PROVISIONS OF THE STATUTE AND REGULATIONS

Under section 403 (k) of the Federal Food, Drug, and Cosmetic Act, a food is deemed to be misbranded if it bears or contains any chemical preservative, unless it bears labeling stating that fact. A proviso to that section requires that, to the extent that compliance with its provisions is impracticable, exemptions shall be established by regulations promulgated by the Secretary of Health, Education and Welfare.[1]

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[1] SEC. 403. "A food shall be deemed to be misbranded * * * (k) if it bears or contains any * * * chemical preservatives, unless it bears labeling stating that fact: *Provided*, That to the extent that compliance with the requirements of this paragraph is impracticable, exemptions shall be established by regulations promulgated by the Secretary * * *"

Section 1.12 of the applicable regulations (21 C. F. R. 1.12) (hereinafter set forth) specifically excludes certain substances from the term "chemical preservative" as used in section 403 (k). The regulation has been interpreted by the Food and Drug Administration to exclude from that term, in addition to the substances named in the regulation, most pesticide chemicals (defined in sec. 201 (q) of the Food, Drug, and Cosmetic Act, 21 U. S. C. 321 (q)), used on raw agricultural commodities (defined in sec. 201 (r) of the act, 21 U. S. C. 321 (r)), and to include certain other pesticide chemicals used on such commodities.

Under this interpretation, pesticide chemicals used as insecticides or grain fumigants are not regarded as chemical preservatives, while chemicals that retard rotting and related deterioration, such as decomposition caused by enzymes, are considered as included within that term. This position of the Food and Drug Administration is stated by Commissioner George Larrick in a letter, dated May 13, 1957, to Mr. Alan Rains, executive vice-president of the United Fresh Fruit & Vegetable Association.

It is the position of the Food and Drug Administration, also stated in the letter to Mr. Alan Rains to which reference is above made, that chemical preservatives added to crops before harvest need not be declared in the labeling of the produce because it is not practicable for a produce handler to determine what chemicals have been used before harvest by the various growers that supply him; that, on the other hand, it is practicable to make a declaration of pesticides added after harvest by the produce handler.

It is the view of the fresh fruit and vegetable industry that pesticide chemicals used on produce of the soil are not properly classified as chemical preservatives within the meaning of section 403 (k) of the act and section 1.12 of the regulations. Moreover, it is impracticable within the meaning of the proviso to section 403 (k) to label produce of the soil to show the presence of pesticidal residues, whether the pesticides are applied before or after harvest. In view, therefore, of our disagreement with the position of the Food and Drug Administration, as above outlined, it is hereby requested:

I. That section 1.12 of the regulations in question be amended by substituting a comma for the period at the end of paragraph (3) of subsection (a) of such section, and adding to such paragraph (3) the following: "or pesticide chemicals in or on raw agricultural commodities which are produce of the soil." Paragraph (3), as so amended, would read as follows (new matter in italic):

> "(3) The term 'chemical preservative' means any chemical which, when added to food, tends to prevent or retard deterioration thereof; but does not include common salt, sugars, vinegars, spices, or oils extracted from spices, or substances added to food by direct exposure thereof to wood smoke, *or pesticide chemicals in or on raw agricultural commodities which are produce of the soil.*"

II. That, as an alternative to the amendment requested under (I) above, a new paragraph (f) be added to section 1.12 of the regulations reading as follows:

> "(f) A raw agricultural commodity which is produce of the soil shall be exempt from the requirement of section 403 (k) of the act that its labeling state it bears or contains a chemical preservative, to the extent that such requirement may be applicable because of the presence of a pesticide chemical or chemicals in or on such commodity."

III. That a public hearing be held on the question of whether section 1.12 of the regulations should be amended as requested under I or II, above.

BASIS FOR PETITION

On April 2, 1957, Mr. Alan Rains, on behalf of the fresh fruit and vegetable industry, submitted the views of the industry upon the subject matter of this petition in a document entitled "Memorandum for the Food and Drug Administration Relating to Fresh Fruits and Vegetables Treated With Pesticide Chemicals." This memorandum presented facts, arguments, and the opinions of State agriculture and land-grant college officials in support of the position of the industry that pesticides used on produce of the soil are not chemical preservatives within the meaning of section 403 (k) and that, if FDA, nevertheless, regards some pesticides as preservatives, it is, in general, impractical to label produce of the soil as bearing or containing them. That memorandum is made a part of this petition.

The memorandum, we believe, contains adequate justification of the alternative requests I and II, above set forth. In support of the request for a public hearing on the petition, we submit the following outline of some of the basic evidence,

including the oral testimony of qualified persons, which we propose to present. This evidence will elaborate the basis for requests I and II and will, it is submitted, demonstrate that, as a matter of law, the Food and Drug Administration is required to afford to the industry the relief herein requested.

A. Evidence will be presented that pesticides are not used on produce of the soil as chemical preservatives in the sense of section 403 (k), and will include testimony to show—

(1) that there is no sound basis for distinguishing between the several kinds of pesticides for the purpose of section 403 (k), since all "tend to prevent or retard deterioration" within the meaning of section 1.12 of the regulations under that section;

(2) that, until recently, it was not even known to the industry or interested State officials that the Food and Drug Administration had adopted a different interpretation for pesticides used on produce of the soil;

(3) that, until recently, the Food and Drug Administration had not, in fact, taken steps to apply its present interpretation of the statute to the use of pesticides on produce of the soil; and

(4) that only a very small percentage of pesticides applied to produce of the soil (i. e., fungicides applied after harvest) would be affected by a chemical preservative labeling requirement, under the present interpretations of the Food and Drug Administration; that, consequently, any benefit received by consumers from label declaration of residues of fungicides, when no declaration is required for the great mass of pesticidal residues (those from insecticides), is insubstantial, if it exists at all.

B. It is impracticable, as a general matter, to label produce of the soil as bearing or containing chemical preservatives. Evidence will be presented to show—

(1) that the multiplicity of pesticides which may be used (in many cases several of them upon a single fruit or vegetable) and the scope, complexity, and character of marketing operations in the industry exclude, as a general matter, the possibility of accommodation to a chemical preservative labeling requirement;

(2) that it is not feasible to distinguish between the various kinds of produce for the purposes of applying a preservative labeling requirement, since the same fruit may be handled in a different manner in different sections of the United States;

(3) that the consumer may be misled by chemical preservative labeling to believe that the residue may be dangerous; that only produce so labeled bears residues; that the label declaration may misinform the consumer into believing that the usual care and precaution (such as refrigeration) in the handling of perishables in the home are not required for produce so labeled;

(4) that, because of factors such as those mentioned in (3) above, the consumer cannot make a fair and unbiased choice between labeled and unlabeled produce and, consequently, unlabeled produce competes unfairly with that labeled as bearing a chemical preservative;

(5) that the factors set forth in (3) and (4) above are properly considered as elements of the concept of impracticability;

(6) that retailers, following long-accepted methods of handling produce in their establishments could not comply with a chemical preservative labeling requirement, even if they were disposed to assume the burden of doing so, and that many of them are refusing to accept produce to which pesticides have been added which would have to be declared under the Food and Drug Administration's interpretation of the statute;

(7) that it is not feasible for the retailer accurately to inform the consumer of the presence of pesticidal residues, even if the problem of identifying the chemicals used were solved, because of the constant shift of position of fruits and vegetables on display in retail establishments, which is required by accepted methods of operation;

(8) that, as a result of enforcement of a preservative labeling requirement, retailers who accept produce subject to such a requirement would, inevitably, because of the impossibility of complying with section 403 (k), place themselves in jeopardy of criminal prosecution by their failure to identify to the consumer the pesticide or pesticides used on the produce in each display; and

(9) that, in those instances where it is feasible to label shipping containers of produce to indicate the presence of residues of post-harvest applied pesticides, the purchaser or consumer will not be correctly informed, if at all, of the presence of such residues, because of the factors above listed.

Testimony will be offered on these points by qualified growers, shippers, retailers, and others who are experienced in the operations of the fresh fruit and vegetable industry and of the establishments affected by the Food and Drug Administration's interpretation of the statute.

CONCLUSION

The Food and Drug Administration may properly grant a hearing upon the question of amendment of its regulations under the Federal Food, Drug, and Cosmetic Act and the Administrative Procedure Act. The basic importance of the problems involved to the industry and the trade and the disruption of the industry which would result from efforts to enforce a preservative labeling requirement, impel the conclusion that the Food and Drug Administration should exercise its discretion and grant the hearing requested.

If evidence is adduced at a hearing, of the facts which we now offer to prove, the requested amendment would be required as a matter of law. A decision, without hearing, that these facts could not be substantiated would, we submit, amount to an unwarranted prejudgment of the issues. It is apparent to us that these issues, complex and far-reaching as they are, cannot properly be resolved without the opportunity of producing, for examination and cross-examination, qualified experts on the problems which are involved.

The undersigned is authorized to file this petition on behalf of the following:

American National Growers Corp., Los Angeles, Calif.
California Grape & Tree Fruit League, San Francisco, Calif.
Chase & Co., Sanford, Fla.
Florida Citrus Commission, Lakeland, Fla.
Florida Citrus Exchange, Tampa, Fla.
Florida Citrus Mutual, Lakeland, Fla.
Florida Fruit & Vegetable Association, Orlando, Fla.
Grower-Shipper Vegetable Association of Central California, Salinas, Calif.
Grower-Shipper Vegetable Association of Santa Barbara and San Luis Obispo Counties, Santa Maria, Calif.
Idaho Grower Shippers Association, Idaho Falls, Idaho
International Apple Association, Inc., Washington, D. C.
Maine Potato Council, Presque Isle, Maine
National Apple Institute, Washington, D. C.
National Council of Farmer Cooperatives, Washington, D. C.
National Grange, Washington, D. C.
National Onion Association, East Lansing, Mich.
Publix Super Markets, Inc., Lakeland, Fla.
Pure Gold, Inc., Redlands, Calif.
Red River Valley Potato Growers Association, East Grand Forks, Minn.
Sunkist Growers, Los Angeles, Calif.
Sunshine Food Markets, Sioux Falls, S. Dak.
Vegetable Growers Association, Phoenix, Ariz.
Vegetable Growers Association of America, Washington, D. C.
West Mexico Vegetable Distributors Association, Nogales, Ariz.
Western Growers Association, Los Angeles, Calif.

Respectfully submitted.

ALAN T. RAINS,
Executive Vice President, United Fresh Fruit & Vegetable Association,
Washington, D. C.

JULY 5, 1957.

Mr. PETERSON. The situation brought about by FDA's interpretation of the statute is one of appalling complexity from the standpoint of those who must reckon with it in their businesses—both shippers and the trade.

THE FDA POSITION

This is the picture:

FDA has told us that pesticide chemicals used as insecticides, including grain fumigants, are not regarded as chemical preservatives and hence that commodities bearing residues of such chemicals need not be labeled to show their presence.

We agree too with that construction of the law.

On the other hand, we are told that chemicals known as fungicides, which retard rotting, and those which retard related deterioration such as decomposition caused by enzymes, are chemical preservatives. Therefore, commodities bearing residues of fungicides must be labeled to show that fact unless it can be demonstrated to the satisfaction of FDA that so to label them is impracticable. FDA concedes that it is impracticable to label commodities treated before harvest with fungicides to show the presence of residues. It has refused to recognize the impracticability of such labeling with respect to commodities to which fungicides are applied after harvest.

It is possible under the interpretation of this, that ingredient, the next morning, when it is off the tree, when you apply the same ingredient, the morning application would have to be labeled and the afternoon one would not, under their interpretation.

The label declaration which FDA would require would involve the use of the name or names of the fungicidal residue present on the commodity followed by words such as "added (or used) as a chemical preservative," or similar terminology.

In the case of melons, for example, the label statement might read "Sodium dimethyldithiocarbamate added as a chemical preservative."

That is what would be on the melon.

Even chemicals recognized as safe without a tolerance under the pesticide chemicals amendment, such as sulfur, must nevertheless be declared upon the label under the FDA ruling, to the extent that a residue remains upon the commodity.

The labeling must accompany the commodity in transit and when it is on display in retail establishments.

Many of the chemicals affected by the FDA ruling have been used for spans of years which reach back to the period preceding the enactment of the Food, Drug, and Cosmetic Act of 1938. Only recently has any effort been made, insofar as we can ascertain, to require a chemical preservative label declaration under the 1938 act on account of the presence upon such foods of residues of these chemicals. Whatever may be the reason for the recent attitude of FDA, its impact, as we shall hereafter show, will be seriously disruptive of the marketing of fresh fruits and vegetables and will result in unnecessary hardships for both consumers and industry.

MEANING OF "CHEMICAL PRESERVATIVES"

There are two basic aspects of the FDA ruling: First, FDA's interpretation that fungicides are chemical preservatives within the meaning of section 403 (k) of the act, and, secondly, its position that it is practicable to label commodities bearing residues of fungicides applied after harvest, to show the presence of such residues.

In the first instance, I should like to consider the FDA position that the term "chemical preservative" includes fungicides applied to fresh fruits and vegetables.

This aspect of the matter is of critical importance. On this point it is significant that FDA's present regulation under section 403 (k) defines "chemical preservative" to include, with certain specified exceptions, chemicals which "tend to prevent or retard deterioration" of the commodities in which they are used.

This regulation has never been construed by FDA as extending to insecticides. Yet we now find that it is construed to include fungicides. The purpose of the use of both insecticides and fungicides is to protect the commodity from parasitical attack so that it will remain in marketable condition.

It seems apparent to us that, if insecticides do not "tend to prevent or retard deterioration," in the sense of the FDA regulation, it cannot logically be maintained that fungicides have such an effect. We pointed out this factor to FDA. As we understood the official view, it was based upon the fact that the action of insecticides is against insects which attack the commodity, while that of fungicides is against other organisms—principally those which cause rotting and related types of decomposition; and that this distinction in the kind of deterioration which is prevented or retarded was the reason for the difference in the treatment of insecticides and fungicides.

This rationale was not convincing. There appears to be nothing in the statute or its recorded legislative history to support it and until April 4, 1958, it was not even reflected in the FDA regulation to which I have referred.

We want to make our position entirely clear then with respect to the basis for and purpose of the proposed legislation. The fundamental purpose of section 403 (k) is to require the declaration of preservatives which are integral parts or ingredients, or processed foods—not to residues of pesticides on fruits and vegetables.

It may be added that, historically, the requirement of declaration of a preservative is linked to the use of such substances to conceal inferiority. Pesticidal residues, of course, serve no such purpose.

We shall present expert testimony to support this position. Certainly the statute affords no basis for singling out one classification of pesticide chemicals—fungicides—for the application of section 403 (k). It may not logically be applied to any pesticide chemical.

We have noted that the FDA regulation under section 403 (k) did not, until April 4, 1958, specifically exclude insecticidal residues (as it does certain other substances), but the FDA has never regarded such residues as subject to that section.

This fact, together with the circumstance that until recently no effort has been made to enforce section 403 (k) with respect to residues of fungicides on fresh fruits and vegetables, is itself a strong indication that the inapplicability of the section to all pesticide chemicals on fresh fruits and vegetables was so clear as to require no specific exclusion by regulation.

CONSUMER INTEREST

In support of its view that fungicides are chemical preservatives whose presence must be declared on the labeling of fresh fruits and vegetables, FDA has stated that—

> When revised food and drug legislation was being considered by the Congress from 1932 to 1938, there was a strong desire by consumers for labeling of foods that declares the presence, among other things, of any added chemical preservative, even though it were present in safe quantity.

No reference is made in the quoted statement to the legislative record and we do not know to what portion of that record it might refer. Section 403 (k) was inserted in 1935 in Senate bill No. 5 which, as

amended, became the 1938 Food, Drug, and Cosmetic Act. The scope of the provision is not indicated in the committee reports.

A review of the debates in Congress and hearings before the House and Senate committees has revealed no specific reference either to the scope of the provision or to consumer representations as to what consumers believed its scope should be.

As a practical matter, it is hardly conceivable that, if consumers had expressed interest in knowing of the presence of pesticidal residues on agricultural commodities, they would have been concerned only with those which resulted from treatment with fungicides as distinguished from insecticides (including those insecticides applied to commodities after harvest). Indeed, it seems highly unlikely that consumers would even have understood the technical distinctions with which we are dealing.

QUESTION OF IMPRACTICABILITY FROM STANDPOINT OF THE PACKER OR SHIPPER

The second basic aspect of the position of FDA is its refusal to recognize the impracticability of labeling fresh fruits and vegetables to show that they have been treated subsequent to harvest with one or more fungicides. As I have indicated above, relief from the FDA ruling could under the statute be granted administratively by FDA upon the ground of impracticability, even if fungicides are regarded as chemical preservatives. However, as we have noted, FDA has not granted such relief.

Among the fresh fruits and vegetables upon which fungicides are used after harvest are apples, citrus (including oranges, lemons, and grapefruit and tangerines), peaches, pears, strawberries, cherries, grapes, melons, asparagus, sweetpotatoes, tomatoes, cucumbers, peppers, eggplant, onions, and squash. These commodities, among which are some of the most important of our fruits and vegetables, are listed only as examples.

The listing does not purport to be exhaustive. It is, however, indicative too of the scope of the problem with which we are now dealing.

Some commodities may bear residues of more than one fungicide. At times no fungicidal treatment may be required. Such a multiplicity of chemicals is available for use that it seems impracticable to attempt a compilation of all of them.

The fact that a tolerance has not been established under the pesticide chemicals amendment for some substances which may be useful does not, of course, mean that they may not be cleared for use in the future.

We may anticipate, therefore, that the labeling problem will increase in difficulty.

It is evident that, in the case of some packaged or boxed commodities, it is feasible to imprint upon the package or box a statement that the contents have been treated with or bear one or more chemical preservatives, along with the name of the chemical or chemicals.

In other cases, however, such labeling is not feasible because of the practical limitations of methods of preparation for shipping and packinghouse procedure.

Pesticides are not indiscriminately applied to all fruits and vegetables or to the whole of a particular single commodity being packed during a given period of packinghouse operation.

Only those portions of the commodity being prepared for shipment which will benefit by pesticidal treatment are subjected to it.

Thus a portion of a commodity being prepared for shipment, even if all on hand in the packinghouse has originated with a single grower, may require treatment to retard the development of spore growth whereas other portions, grown on different acreage, may be free of the deleterious organism.

The packinghouse operation often involves the commingling of both treated and untreated portions of the commodity before packaging or boxing is completed. In many cases the operation cannot be so conducted as to differentiate between the treated and untreated fruit or vegetable in a manner which would permit accurate identification of pesticidal residues on the produce, whether applied before harvest or in the packinghouse itself.

Both pass along the same conveyor and are deposited in the same receptacle or receptacles to await packaging.

It is evident that the requirement would require revision of packinghouse requirements as well as other requirements, including in some instances the stopping of organizations.

It is evident that it would not be economically feasible for many packing plants to gear their operations to the FDA labeling requirement, ignoring considerations of supply and the benefits of continuous operation.

That would mean stopping the operation in order to separate the treated and untreated portions, the installation of new facilities (assuming them to be available and their installation economically possible), or both.

It will be remembered that the purpose of such a disruption of operations would be to permit declaration upon the label of only a portion of the pesticidal residue on the commodity, viz., the residues of fungicides applied after harvest.

The same commodity may, and frequently does, bear residues of insecticides applied either before or after harvest, or residues of fungicides applied before harvest, which need not be declared under FDA's interpretation of the statute.

In other words, they may apply something the day before, and the residue is labeled. When you apply it before you harvest it, it is not required to be labeled.

The advantages to the consumer of such a selective requirement are not apparent, but its impracticability and unreasonableness seem to us to be obvious.

Again, where commodities are shipped in bulk rather than in boxes or packages, in order to comply with the FDA ruling, the shipper somehow would often be forced to determine whether two lots of a commodity could be shipped in the same freight car or truck on the basis of whether both lots were untreated or had been treated with the same fungicide or fungicides.

Otherwise, the commingling of the individual units during transit or at destination, as during the unloading operation or in the ware-

house, might result in a loss of identity of the treated and untreated portions.

This does not seem to be a reasonable basis for what should be a decision based on supply, marketing, or the other business considerations.

It is important to observe, in connection with these comments, that inaccurate labeling is misbranding under the Food, Drug, and Cosmetic Act; that the commodity would be subject to seizure for such misbranding; and that the person causing the misbranding would be subject to criminal prosecution.

IMPRACTICABILITY AT THE RETAIL LEVEL

The comments which I have made reflect the impact upon packing and shipping operations of the interpretation of section 403 (k) which has been made by the Food and Drug Administration.

When considered in the light of the vast scope and complexity of the fresh fruit and vegetable industry and the myriad of products and chemicals involved, it seems to us to require the conclusion that, even if fungicides were properly regarded as chemical preservatives, a position with which we disagree, it is impracticable to label fresh fruits and vegetables to show the presence of residues of such chemicals.

Mr. Chairman, the dilemma with which the packer or shipper of fresh fruits and vegetables is confronted because of the FDA ruling is discouraging enough.

That with which both industry and consumer are faced at the retail level is truly alarming.

FDA apparently realizes that it is not feasible to label each unpacked unit of an item of produce to show the residue of a fungicide or fungicides which it may bear. We have been told, therefore, that a placard bearing the prescribed labeling may be displayed in conjunction with the bulk commodity as it is offered for sale in the store bins, or that the produce may be displayed in a shipping container bearing such labeling.

This suggested kind of compliance, which apparently is so simple, is in fact, impossible of attainment as a practical matter.

One of the fundamental tenets of good merchandising of fresh produce is rotation of individual units on display and shifting of the positions of the displays.

Thus, as the supply on sale in a particular bin is depleted, fresh units of the produce are added. Those remaining unsold are rearranged so that they are at hand at the top of the display, covering the fresh units. At night, in good merchandising practice, unless the display bin itself is refrigerated, the produce is placed in a shipping carton or other container and removed to a refrigerated location.

The problem facing a grocery clerk in complying with the FDA labeling requirement, after a day of rotation of an item of produce, or after it has been removed for night refrigeration, is plainly a formidable one.

For example, portions of one or more shipments of apples from several grower sources, with several different postharvest fungicidal residues, may be on hand in the storeroom of the retail establishment.

This supply is replenished as required from various sources. It is simply not reasonable or consonant with merchandising experience to expect that the correct chemical preservative label or placard can or will be shifted about by the employees of the establishment in such a manner that it will be presented to the customer in conjunction with the particular fruit to which it relates.

More specifically, consider a stock of oranges from Florida or California in a retail market. Some of the oranges may bear residues resulting from postharvest treatment with biphenyl, others may bear residues of sodium orthophenylphenate, others, residues of both fungicides, and some may bear no residue at all.

Each shipping carton may be stamped to indicate the presence of the fungicide or fungicides used and may contain a placard to the same effect, for display by the retail store operator.

However in the process of rotation and replenishment of displays untreated oranges may be placed in a bin which is placarded to show the presence on the fruit of biphenyl or both biphenyl and sodium orthophenylphenate, and oranges treated only with sodium orthophenylphenate may be shifted to a position placarded to show the presence of residues of both fungicides.

At night the bins may be emptied into whatever carton is handy and the fruit is returned to bins the next morning.

We submit that it is unreasonable to expect store clerks or other employees to comply with the FDA ruling under such circumstances.

These conditions will be duplicated in the case of many kinds of fruits and vegetables. The problem is, of course, intensified where produce is shipped in bulk. In such cases, adequate identification according to the fungicidal residues present on the commodity may be impossible.

LEGAL RESPONSIBILITY OF RETAILER

A basically important aspect of the problem is the legal responsibility of the retailer for failure to label correctly the produce which he offers for sale. It is a violation of the Food, Drug, and Cosmetic Act for the retailer either to display the wrong placard or to use no placard where one is required or to use a placard indicating presence of a chemical residue when the fruit in fact is untreated since the result would be a misbranding of the food which it was being held for sale after interstate shipment.

For such a violation, the retailer may be subjected to criminal prosecution with possible penalties, upon conviction, of fine or imprisonment.

In view of the factors above considered, even if only a single food and a single, identified chemical residue were involved, the propriety of an interpretation which might result in such a prosecution would be open to substantial question.

Where many chemicals and many commodities are involved and the offenders are inevitably going to number in the thousands, because of the impracticability of compliance, the validity of the FDA interpretation is even more dubious.

The shipper, himself, can avoid legal action in some cases, by labeling the container or inserting the placard, or both. As a practical matter, however, the conclusion is inescapable that storekeepers throughout the country will be unable to avoid violation of the act

as interpreted by FDA either through failure to use a placard or by using a placard indicating the presence of a chemical residue when the fruit is in fact untreated or by using the wrong one.

A construction of a statute imposing criminal penalties in a manner which will necessarily result in such widespread violations cannot be regarded as valid unless it is clearly required by the statutory language. We submit to the subcommittee that the FDA construction is not required by the language or history of section 403 (k). On the contrary, in our view, the agency's interpretation is arbitrary and inconsistent.

OTHER CONSIDERATIONS

I have dealt with certain specific factors involved in the handling of produce which make it impracticable to comply with the FDA labeling requirement, and too with the matter of legal responsibility.

Of basic importance also are certain intangible but nonetheless real factors which have not been mentioned.

First, it is evident that an attempt in retail establishments to identify produce according to fungicidal residues which it bears will result in misinforming purchasers, since it would not be possible consistently to associate the proper labeling with such produce for the reasons which I have indicated.

Furthermore, it is inherently illogical, in our estimation, to inform consumers of the presence of fungicides on these commodities while making no reference to the fact that other substances may be, and usually are, present.

Secondly, since the use of the type of preservatives familiar to most consumers—those used in manufactured or on processed foods, which we think section 403 (k) was intended to regulate—frequently eliminates the necessity of refrigeration in order to hold the preserved food in an edible condition, purchasers may be misled by notification of the presence of a chemical preservative into believing that the refrigeration of fresh produce has been rendered unnecessary by the fungicidal treatment.

Finally, it seems evident to us that the presence in the store of labeled produce (which bears a fungicidal residue) and unlabeled produce (which has not been treated with fungicides) will tend to result in discrimination by the purchaser against the labeled commodity, where he is confronted by the words chemical preservative added or with such tongue-twisting chemical names as 2,4-dichlorophenoxyacetic acid or sodium o-phenylphenate, both of which are used on citrus; or with sodium dimethyl dithicarbamate on melons; or with Zineb, a contraction of zinc ethylene bisdithiocarbamate, on currants.

Such a discriminatory result looms as entirely futile and unjustified when the consumer purchases an unlabeled commodity upon the assumption that it bears no chemical residue at all whereas, as we have noted, it may bear a residue or residues from one or more pre- or post-harvest insecticidal treatment or preharvest fungicidal treatment.

INDUSTRY ATTEMPTS TO OBTAIN ADMINISTRATIVE RELIEF

There have been numerous conferences on the basic problem between industry representatives and FDA officials, including the Commissioner and his principal assistants who are dealing with the matter.

Detailed memoranda analyzing the pertinent factual and legal considerations and letters from industry representatives stating the position of the industry and showing the impracticability of the FDA labeling requirements have been placed before the Commissioner of Food and Drugs.

A petition for a public hearing on the entire problem was filed on behalf of the industry under date of July 5, 1957 and was denied by FDA by letter of July 24, 1957.

Our requests to FDA for relief have been in the alternative. We have asked that fungicides be excluded by administrative regulation from the term chemical preservative, or that fresh fruits and vegetables bearing fungicidal residues be exempted from the labeling requirement.

We could not, however, accept as adequate an administrative policy of considering exemptions for each particular category of commodities, such as citrus, on a piecemeal basis. It is our understanding that this is the only approach which FDA will consider.

Such procedure would involve great uncertainties, incalculable delays for separate consideration of each category, and unpredictable expense. Moreover administrative relief is not necessarily permanent. The entire matter could be reopened by FDA for reconsideration at any time. The inclusive character and the relative finality of relief by the legislation proposed is, therefore, essential to a satisfactory resolution of this problem.

CONCLUSION

The Food and Drug Administration has stated, and has informed the press, that many communications are being received from consumers attacking FDA and industry because of the increasing use of chemicals in and on foods, and that the use of preservatives on fresh fruits and vegetables is specifically mentioned by some consumers in their correspondence.

It was in recognition of the necessity of the use of such chemicals and of safeguarding the public health in connection therewith, that the pesticide chemicals amendment was enacted in 1954 and that an amendment to control additions to food of chemicals other than pesticides is being advocated by both FDA and industry.

There can be no doubt as Congress, FDA, the Department of Agriculture, officials of State departments of agriculture, and land-grant college officials have repeatedly stated, that the quality and abundance of agricultural produce and the efficient processing and handling of many foods, is today dependent upon the use of chemicals in or upon the food.

Nor is it an answer to our request for enactment of H. R. 9521 to cite the fact that the presence of chemicals used in manufactured or prepared foods must also be shown on their labels.

Prepared foods are not ordinarily expected by the consumer to be "fresh" in the same sense as are fresh fruits and vegetables.

When the purchaser is told that an apple or a pear has been treated with a chemical preservative he is likely to assume that its appearance of freshness is due to the chemical rather than to the condition of the fruit itself. This assumption would, of course, be erroneous. The pesticide does not effect a chemical change in the fruit. It attacks

the fungus or spore organism which, without the pesticidal action, would injure the commodity or cause it to rot.

We think that there can be no doubt that the lack of understanding by consumers of the function of pesticides in the production and marketing of fresh produce would create buyer resistance to such produce if it is labeled to show the presence of pesticidal residues, often with chemical nomenclature which is unintelligible to most purchasers.

Substantial resistance by retail establishments has already been encountered. Inevitably the development and use of new and valuable chemicals would be retarded and we are convinced that, eventually, fresh produce would become less abundant in the market place.

It is true that, under the FDA interpretation of section 403 (k), only produce which has been subjected to postharvest application of fungicides would be subjected to the chemical preservative labeling requirement, even though there may be other residues present which derive from treatment with insecticides.

Nevertheless, as I have indicated, a great number of the most widely used fruits and vegetables are treated after harvest with fungicides, whose presence FDA insists must be declared.

It is from the unfortunate results upon the production and utilization of these important commodities that we appeal to the Congress for relief by the enactment of H. R. 9521.

I have been authorized to make this statement on behalf of the following associations, firms, and organizations:

California Grape & Tree Fruit League, San Francisco, Calif.
Florida Citrus Commission, Lakeland, Fla.
Florida Citrus Exchange, Tampa, Fla.
Florida Citrus Mutual, Lakeland, Fla.
Florida Fruit & Vegetable Association, Orlando, Fla.
Grower-Shipper Vegetable Association of Central California, Salinas, Calif.
Haines City Citrus Growers Association, Haines City, Fla.
International Apple Association, Washington, D. C.
Iowa Food Distributors Association, Des Moines, Iowa
Medford Pear Shippers Association, Medford, Oreg.
National Apple Institute, Washington, D. C.
National Council of Farmer Cooperatives, Washington, D. C.
The National Grange, Washington, D. C.
National Onion Association, Lansing, Mich.
Northwest Horticultural Council, Yakima, Wash.
Oregon-Washington-California Pear Bureau, Portland, Oreg.
Pure Gold, Inc., Redlands, Calif.
Standard Fruit & Steamship Co., New Orleans, La.
Sunkist Growers, Inc., Los Angeles, Calif.
United Fresh Fruit & Vegetable Association, Washington, D. C.
Vegetable Growers Association, Phoenix, Ariz.
Vegetable Growers Association of America, Washington, D. C.
West Mexico Vegetable Distributors Association, Nogales, Ariz.
Western Fruit Growers Sales Company, Fullerton, Calif.
Western Growers Association, Los Angeles, Calif.

You will notice throughout the United States that there are various types of fruits and vegetables. There should be added to this the

Horticultural Society of Idaho Growers & Shippers Association and the Idaho Horticultural Society of Idaho Falls, Idaho, and Caldwell, Idaho, respectively.

It is a problem that affects all fruits and vegetables. We are appealing to Congress for relief because we have failed in administrative relief.

I apologize for taking so much time, but, as I said, it was a composite statement, and they instructed me to present the entire statement, because it covers all of the features.

Thank you very much.

Mr. WILLIAMS. Thank you, Mr. Peterson, for an excellent summation and explanation of your position on this bill. There may be questions by members of the subcommittee.

Mr. BUSH. I have no questions.

Mr. WILLIAMS. Mr. Rhodes?

Mr. RHODES. I have no questions.

Mr. WILLIAMS. Mr. Schenck?

Mr. SCHENCK. No questions.

Mr. WILLIAMS. Mr. Dingell.

Mr. DINGELL. You discuss that you sought administrative relief, and you say that administrative relief available is not enough. Your wording is—

> We could not, however, accept as adequate an administrative policy of considering exemptions for each category of commodity such as citrus, on a piecemeal basis.

Mr. PETERSON. They published a few days ago in the Register an order with reference to citrus itself. They would require us to label the box, but they would not require us to label each item in the store.

Mr. DINGELL. Wouldn't that be administrative relief you are seeking, because in the case of citrus, you just label the box and ship it?

Mr. PETERSON. Yes; but we don't know whether that will go through. That is merely published, and then people have to give the testimony and we have to substantiate our right through impracticability again.

By that time the Congress would be over. Furthermore, the situation which reached us near the first is that it has now gone into the question of melons and tomatoes and that sort of thing.

It would not be fair, because we happened to be the first ones to protest, to have them give us relief and run out on the others. It is a nationwide problem.

Mr. DINGELL. This interests me greatly. You say that producers of citrus are today permitted to label the box but they don't have to label the contents?

Mr. PETERSON. No; not today. Today we must put the label in the open, and then it falls down, and many of the stores wouldn't take it that way. You can't treat it, because they say if it falls down, they will be prosecuted. But they have published within the last few weeks a proposed order with reference to citrus which would allow the label of the package. If you put in oranges, you still have to put them in a package and label the package. It is only when they are free and loose that they wouldn't have to be. But even on that, the hearing date will be set, and we then have to show the impracticability of labeling, and before you get through that hearing, Congress will be over.

But lightning struck us first because we usually ship earlier in the season than anybody else. The problem is with reference to melons, with reference to tomatoes, cucumbers, and apples.

So it is a problem that is so nationwide that Congress is the only one that can solve it.

Mr. DINGELL. But on the basis of what you say, you have not exhausted your administrative remedies. I assume the Food and Drug is still ready to hear you.

Mr. PETERSON. They turned down petitions twice. That is in the exhibits I placed in the record. They would not grant a hearing. Then finally, just a few weeks ago, after this hearing was scheduled, they put a tentative order in affecting citrus.

I could not run out on the fruit and vegetable industry just because they are trying to give us something, and we don't know about that yet because we have to come in to them and prove the impracticability.

For 2 years they have turned down the fruit and vegetable industry.

Mr. DINGELL. You will admit that citrus is different than, let us say, tomatoes or apples where the consumer actually eats the hide and gets the preservative inside him, is that right?

Mr. PETERSON. None of this is poisonous. None of us want to use it if it is poisonous. We don't even know yet that we can get the administrative relief that they have attempted, because we have to go through the long-drawn-out hearing, and we still have to show the impracticability. Then if they turn us down, Congress will be over. If we ship without those, we will lose that great portion which ultimately the consumer pays the bill for.

There is a loss on the shelves.

Mr. DINGELL. Let me ask you one more question. Have any of your people in the industry, referring to any of the industries, tried to say on these signs and notices to the consumer language something like this:

"This food is protected for your benefit under the provisions of the Food and Drug Act," giving the citation, and then saying, "By the use of" whatever chemical it happens to be?

Mr. PETERSON. I think one person out West tried something of a label of that sort.

Mr. DINGELL. How did it work?

Mr. PETERSON. The label was lost. That is the trouble. And then there is the mixing. That is the trouble. You see, one batch of apples can be treated with one thing and another with another, and when you mix them, you have violated the law.

I talked with Mr. Jenkins himself, and he said it just wouldn't work, that he wanted to sell vegetables but it just would not work. Then he said "some kid will fail to put up the sign and then I am in jail."

Mr. WILLIAMS. Mr. Holland will be the next witness.

STATEMENT OF FRANK L. HOLLAND, FLORIDA STATE HORTICULTURAL SOCIETY, WINTER HAVEN, FLA.

Mr. HOLLAND. I am pleased to tell you, Mr. Chairman, and the gentlemen on your committee, that my statement is short to begin with.

Mr. WILLIAMS. Thank you.

Mr. HOLLAND. My name is Frank L. Holland, of Winter Haven, Fla. I am appearing on behalf of the society as per written request of the society's executive committe on January 17, 1958.

Further, this statement has the written approval of Dr. A. F. Camp, president of the society, and Dr. E. L. Spencer, secretary of the society.

The society was founded 71 years ago and has been in continuous existence since that time. It is dedicated to the advancement and development of horticulture in Florida—which makes it obviously interested in the operation of various public agencies dealing with horticulture or with horticultural products—which are the subjects of H. R. 9521.

The society per se is primarily concerned with matters affecting producers of fresh fruits, vegetables, and other horticultural crops.

It is also concerned with the welfare of shippers and handlers of these crops and commodities. It therefore has a proper interest in the legislation pending.

Fundamentally, the membership of our society is no different from other people in that their families buy fresh fruits and vegetables daily in food stores—they are concerned not only with the freshness of such items, but also with the dollar value point of view as relates to these fruits and vegetables maintaining their freshness in the home until they are used.

They also understandably want to have complete confidence in the safety of these fresh fruits and vegetables. These people buy and use these general items daily in their homes regardless of whether they are produced in Florida or whether they consist of items produced elsewhere, such as apples, pears, grapes, peaches, and many other comparable items.

Specifically the society supports this legislation for several reasons including the following:

A. We know that under food and drug statutes, the postharvest use of pesticide chemicals is subject to proper control by Food and Drug through the mechanics of tolerances. We further know that in each and every instance where Food and Drug has established a tolerance they state, "* * * the tolerances established in this order will protect the public health * * *." We like that. It's concise and clear. We believe that it is completely adequate and anything further or in addition would be meaningless and unnecessary.

B. The Federal Food, Drug, and Cosmetic Act as amended by public law 518, 83d Congress, states in part as follows:

1. "The term 'raw agricultural commodity' means any food in its raw or natural state, including all fruits that are washed, colored, or otherwise treated in their unpeeled natural form prior to marketing."

It seems obvious from this definition of "raw agricultural commodities" that the Congress clearly intended to differentiate between them and other food items that are pickled, dried, preserved, or otherwise processed.

2. The same statute defines the term "pesticide chemical" as any substance which is an "economic poison" within the meaning of the Federal Insecticide, Fungicide, and Rodenticide Act, and which "economic poisons" are used in the production, storage or transporta-

tion of raw agricultural commodities. It seems quite clear that postharvest use of pesticide chemicals is covered as well as their use in growing crops.

3. Therefore, the term "pesticide chemical" as per definition of the Food and Drug Act, as tied specifically to the Federal Insecticide, Fungicide, and Rodenticide Act, includes all substances and preparations intended for use as insecticides, fungicides, rodenticides, and herbicides—both postharvest and preharvest.

The above three points make it quite clear that fungicides as well as other pesticide chemicals, could be properly used after harvest of raw agricultural commodities. We point out that these provisions are parts of the food and drug law. We see no basis in this law for the postharvest use of fungicides on raw agricultural commodities to be construed in any manner other than that clearly stated in the act by the Congress.

C. Amendments to section 402 (a) and to section 408 (a) of the food and drug law as made via public law 518, 83d Congress, makes it clear that when—

(*a*) A tolerance for pesticide chemicals in or on raw agricultural commodities has been prescribed, and the quantity of such pesticide chemical in or on such commodities is within the limits of the tolerance set, or

(*b*) If the pesticide chemical has been exempted from the requirements of a tolerance, then the pesticide chemical present is not considered as an unsafe added poisonous or added deleterious substance, and that the raw agricultural commodity is safe.

D. Further the facts are that there has been knowingly, openly, properly and safely—and for many years—widespread use of postharvest treatments of raw agricultural commodities, including such items as citrus fruits, apples, peaches, pears, grapes, and others.

Possibly some other witnesses may testify on this point in historical detail. If not, and if your committee and the Congress would like to have the complete facts on this point, they should be forthcoming from the United States Department of Agriculture. Such uses have been beneficial to all concerned including the American housewife and her family. Such uses were made further clearly permissible by the amendments to the Food and Drug Act (in public law 518) and, if possible made more safe in view of the tolerance provisions in the Food and Drug Act and the effective and proper jurisdiction of these tolerance provisions by the Food and Drug Administration.

These postharvest uses of pesticide chemicals were not only unquestioned for approximately 20 years or more by Food and Drug, but were even unquestioned for some time after the passage of Public Law 518 in 1954.

Our society, on behalf of the producers and handlers of fresh fruits and vegetables (and other raw agricultural commodities as defined by the Congress) has been interested, active in educational work, and cooperative with State and Federal agencies and institutions as well as with producers and handlers in making sure that tolerance information was developed, made known to all concerned, and accurately and safely followed in the actual growing of fruits and vegetables, and in the postharvest handling of same.

We fail to understand why just recently Food and Drug suddenly places an interpretation on the obviously permitted postharvest use of pesticide chemicals, which interpretation would not only ignore Public Law 518 but would attempt to place these uses in the category of "preservatives" under another section of the food and drug law.

Particularly we are at a loss to understand why Food and Drug suddenly attempts this interpretation when the section they refer to has been in the law many years; tremendous quantities of fresh fruits and vegetables have received such treatments during these years; apparently Food and Drug felt that such items and their uses were not "preservatives" during all those years—or they would have made some effort to that end.

If these things which Food and Drug now claim are necessary as to their responsibility to enforce the Food and Drug Act then where have they been as to interpretations, policies, and enforcement during the past 20 years and why this sudden effort—in spite of the fact that now the food and drug law specifically provides for postharvest use of pesticide chemicals on raw agricultural commodities—and by the definitions in the law, fungicides are permissive exactly the same as insecticides and other items covered by the statute.

E. We were in 1953, and up until recently, further convinced that Food and Drug saw this whole matter as we see it, and as the Congress so clearly stated in Public Law 518. This is based on minutes of a conference held in Washington, D. C., in November of 1953, participated in by the then two top officials of Food and Drug along with representatives of the Food Protection Committee of the National Research Council, the National Agricultural Chemicals Association, and the Florida Conference Group. Paragraph 5 of the minutes of that conference state as follows:

> 5. *Status of food preservatives added to processed foods in relation to this bill.*—The conference reached agreement on limiting the application of this bill to raw agricultural products which are uncooked, unfrozen, unmilled, etc., and in the form usually purchased by the consumer or food processor. It would not apply to processed food. It was also agreed that the bill should provide for tolerances on pesticide chemicals used in the packaging, storage, transportation, or any postharvest treatment of these unprocessed agricultural products. It was further agreed that an attempt would be made to draw a sharp line of distinction between such articles as washed, colored oranges which would be within the scope of this bill and dried apples which would not.

These minutes were approved by conferees before being distributed.

The society was furnished copies of those minutes and they are attached hereto. The society feels that paragraph 5 of those minutes quoted above makes it quite clear that there was an understandable differentiation between fresh fruits and vegetables and those which have been pickled, preserved, dried or otherwise processed.

We feel that that basis was maintained and clearly stated as the intent and purpose of the Congress in the wording of Public Law 518—parts of which have been quoted or referred to earlier herein.

(The document referred to follows:)

CONFERENCE ON MILLER BILL (H. R. 4277)

A conference was held in Washington, D. C., on November 11, 1953, for the purpose of considering certain provisions in the August 1 reprint of H. R. 4277 and some proposals for amending it.

Present were:

Charles W. Crawford, Food and Drug Administration
George Decker, University of Illinois
L. S. Hitchner, National Agricultural Chemicals Association
Frank L. Holland, Florida Conference Group
George P. Larrick, Food and Drug Administration
L. G. MacDowell, Florida Conference Group
J. A. Noone, National Agricultural Chemicals Association

Mr. Hitchner, who acted as chairman, opened the meeting by pointing out that the proponents of the bill and the Food and Drug Administration had previously reached accord on the August 1 reprint of the bill with the exception of a few points. It was the purpose of this conference to consider these few remaining points which were at issue and to seek to reach accord on them so that the interested groups could support the bill when it again received consideration from the Congress. However, the Food and Drug Administration representatives stated that they were authorized to work with the group in trying to agree concerning the technical problems involved in the proposed legislation, but were not authorized to commit the Secretary of Health, Education, and Welfare as to her administrative position. All these issues were discussed and the disposition of them by the conference is outlined below.

1. Whether or not there should be a provision in the bill authorizing the charging of fees in connection with the establishment of tolerances.

Conference members, with the exception of the Food and Drug Administration representatives, were in agreement that the bill should be financed from public funds and not by levying fees for the establishment of residue tolerances. The Food and Drug Administration representatives stated that in accordance with administration policy to collect fees for various Government functions and services, they would have to request a fee schedule to cover the operations of the bill if it were to be enacted.

2. Should the Secretary of Health, Education, and Welfare be required to hold public hearings, if anyone so requested, before issuing interpretive and implementing regulations under the bill?

The conference reached agreement on this point on the basis of the following:

(*a*) Implementing regulations under the bill would be established in accordance with procedure specified in the Administrative Procedure Act which provides that an opportunity be given for the submission of views, either orally or in writing, before regulations can become effective, except when an emergency is found to exist necessitating immediate application of the regulations.

(*b*) A minimum of 60 days would be provided for the submission of views before a proposed regulation was adopted as final.

(*c*) A statement would be inserted in the legislative record of the bill indicating that public hearings should be held on important regulations.

3. Selection and composition of Advisory Committee personnel.

(*a*) The conference reached agreement on the composition of the committees on the following basis:

The sentence beginning on line 20, page 9 should be amended to read as follows:

> "Each such advisory committee shall be composed of experts, qualified in the subject matter of the petition and of adequately diversified professional backgrounds, and shall include one or more representatives from land grant colleges,"

and by inserting into the legislative record a statement outlining the need for personnel of diversified professional backgrounds and indicating the types of professional men who should be on such committees.

(*b*) The conference reached agreement on the manner of selecting the committees on the following basis: The personnel would be selected by the National Research Council or the National Academy of Sciences and then appointed by the Secretary of Health, Education, and Welfare with the understanding that the National Research Council or the National Academy of Sciences would select the land-grant college representatives on the basis of recommendations made by the Association of Land-Grant Colleges and Universities or the proper committee thereof.

4. Procedure to be followed when the Secretary of Health, Education, and Welfare proposed to issue a tolerance on her own initiative.

Members of the conference were in accord that a properly interested party should have the right to require that any proposal to establish a tolerance initiated by the Secretary be referred to an advisory committee with data before a tolerance is established. However, it is not intended that a petition filed by a properly interested party should arrest the progress of the proposal initiated by the Secretary.

5. Status of food preservatives added to processed foods in relation to this bill.

The conference reached agreement on limiting the application of this bill to raw agricultural products which are uncooked, unfrozen, unmilled, etc., and in the form usually purchased by the consumer or food processor. It would not apply to processed food. It was also agreed that the bill should provide for tolerances on pesticide chemicals used in the packaging, storage, transportation, or any post-harvest treatment of these unprocessed agricultural products. It was further agreed that an attempt would be made to draw a sharp line of distinction between such articles as washed, colored oranges which would be within the scope of this bill and dried apples which would not.

6. Nature and scope of the certification to be made by the Secretary of Agriculture to the Secretary of Health, Education, and Welfare.

The conference reached accord on this point by agreeing to amend the bill by inserting after the word "sought" on line 9, page 14, the phrase "and give an estimate of the amount of residue, if any, likely to remain on the food on the basis of the data available to him." This statement would be in addition to the statement that the pesticide chemical is useful for the purpose for which a tolerance or exemption is sought.

7. Amount of toxicity data which should be required to accompany the petition for a tolerance.

The conference, with the exception of the Food and Drug Administration representatives, were in accord that the present wording of item (C) on line 5, page 5, "toxicity information" was adequate when viewed in relation to the provision on lines 4–9 of page 4 which permits the Secretary to set a tolerance at zero level "if the scientific data before the Secretary does not justify the establishment of a greater tolerance."

The Food and Drug Administration representatives stated that they considered the present wording of the bill unsatisfactory and that it will probably be necessary for them to so advise the Secretary of Health, Education, and Welfare.

8. Setting of a zero tolerance or establishing no tolerance.

The conference agreed that no tolerance or a zero tolerance should be established where there is no reason for any residue to be present in or on the food as in the case of materials such as "1080" which is never recommended for use in or on food or a material like TEPP which completely hydrolyzes to a safe compound within a very limited period of time.

Thus at the conclusion of the conference, agreement has been reached on all points involved in the bill with the exception of the question of fees for the establishment of tolerances and the extent to which the bill should specify the type of toxicity data to be included in the petition for a tolerance.

J. A. NOONE, *Acting Secretary.*

Mr. HOLLAND. Our beliefs seem further borne out by the proceedings of our society for the year 1955. At that annual meeting there was a panel on the topic of "Tolerances of pesticidal residues."

We were honored to have as one of the participants Hon. W. B. Rankin, assistant to the Commissioner of Food and Drug Administration.

Our society holds Mr. Rankin in the highest regard, both personally and professionally, as well as other folks in Food and Drug. These proceedings, including Mr. Rankin's statements, do not reflect any thought or point to the effect that Food and Drug was considering pesticide chemicals—when properly used and limited by tolerance procedures—as being preservatives.

As further evidence of our constructive interest in Food and Drug, please note copy of resolution adopted by our membership in November 1955 as attached hereto.

(The document referred to follows:)

[Copy of resolution adopted by the Florida State Horticultural Society in annual membership meeting, November 1955]

Whereas the Florida State Horticultural Society has been advised of the severe shortage of personnel and funds of the United States Food and Drug Administration, and

Whereas the society believes this situation is so critical that it should be remedied promptly by the Congress of the United States: Therefore be it

Resolved by the Florida State Horticultural Society—

1. That the Budget Bureau at Washington, all members of the Florida delegation to Congress, the Appropriations Committee of the House and the Senate, be requested to provide adequate funds for the operation of the United States Food and Drug Administration as promptly as possible; and

2. The society authorizes and requests its officers and executive committee to pursue this with other groups in Florida who have proper interest in the functions of the United States Food and Drug Administration; and

3. That copies of this resolution be sent to the United States Budget Bureau, to the Members of the Florida delegation to Congress, and to the members of the House and Senate Appropriations Committees.

Mr. HOLLAND. F. The impracticability of carrying out, by producers and handlers and the food trade, and therefore the impracticability of enforcement of Food and Drug's interpretation, is a further reason for our society supporting H. R. 9521. While our society does not pose as "food trade" at all, we do know that various lots of raw agricultural commodities lose their individual identities as repackaged, prepackaged, displayed, and sold at retail. Probably the statement of other witnesses will dwell on this. We point out just one minor item of impracticability: The following chemical names are taken from orders of Food and Drug where tolerances have been set for the use of such pesticide chemicals on fruits or vegetables or both. What would the housewife understand or know from a placard or sign containing such chemical terms:

1,1-bis (p-chlorophenyl)-2, 2, 2-trichloroethenal.

O, O-diethyl O-(2-isopropyl-4-methyl-6-pyrimidinyl) phosphorothioate.

1, 1-dichloro-2, 2-bis (p-ethylphenyl) ethane.

O, O-dimethyl S-(4-oxo-1, 2, 3-benzotriazinyl-3-methyl) phosphorodithioate.

1-methoxycarbonyl-1-propen-2-yl dimethylphosphate and its beta isomer.

S-(p-chlorophenylthio) methyl O, O-dithyl phosphorodithioate.

Some may say they are all pesticides. That is true.

In case that question comes up, I have prepared and I would like to pass to you gentlemen, some things that carry the name strictly of fungicides, which in our judgment are legally, properly used.

They are taken from the orders. Frankly, I can't tell you what they are, but I know they are fungicides and pesticides. They are taken from the Food and Drug. It is interesting to see some of the words on there.

One other point, while I am on my feet, is that 403 (i) (2) has been mentioned. Our interpretation of what that would mean on Florida grapefruit, if it is lowest in the bin, would be a sign something like this one, which I am happy to show to you. Bear in mind that has to

do with 403 (i) (2) which appears in a proposal in the Federal Register of April 4, 1958.

In summary: We support H. R. 9521 because it is in full keeping with the previously stated intent and purpose of the Congress as we read it in the clear language of Public Law 518, 83d Congress.

It does not diminish by one iota the safety of the food supplies of the Nation.

It does not weaken the proper control of Food and Drug over postharvest use of pesticide chemicals through the medium of tolerances.

It would enable producers, handlers, and vendors of raw agricultural commodities to carry out their business in a proper, safe, and efficient manner.

It would relieve Food and Drug of attempting to carry out an interpretation which is impractical as to its functioning or enforcement, staggering as to cost, and unproductive as to results.

Our growers and farmers use pesticide chemicals to produce fruits and vegetables of high quality suitable for consumers.

Shippers and handlers in turn want these fruits and vegetables to maintain their freshness and quality through intermediate stages until they reach retail markets—and in the home until they are used. They make proper postharvest use of pesticide chemicals for these purposes.

These practices are specifically provided for and regulated under the food and drug law.

We point out, Mr. Chairman, and gentlemen, that they appear by statutory definition. We fail to find any definition for either added ingredient or chemical preservatives. We do find on the other hand, spelled out in clear, concise language, statutory definitions of the so-called other items in the Miller amendment, and we think that is adequate.

Adoption of H. R. 9521 should make it impossible for any further confusing interpretations on this point.

Thank you very much.

Mr. WILLIAMS. Are these signs included in your statement?

Mr. HOLLAND. They are not, sir.

Mr. WILLIAMS. I think it might be well to include those in the record.

Mr. HOLLAND. I will be happy to have some copies made.

Mr. WILLIAMS. Do I understand these are sample labels?

Mr. HOLLAND. No, sir. What they are is verbiage taken from official orders of Food and Drug establishing tolerances on the use of certain pesticide chemicals postharvest. Those small ones are taken from such tolerance orders, Mr. Chairman.

Mr. WILLIAMS. Are you required to label the fruit with these?

Mr. HOLLAND. No, sir; but under some of their proposals we would be. We would be required to do it, although they have already stated that the use of these things is safe, you understand, and, therefore, the foodstuff is safe.

(The document referred to follows:)

Mr. HOLLAND. I defy you, sir, in a friendly way, a kindly way, to tell me that any infinitesimal percentage of the housewives of this country would have the slightest conception of what those terms mean.

We figure that the wives of our members of the Florida State Horticultural Society, shortly less than 2,000 active members, are typical of the housewives of this country. They are Florida women, but we think they are typical of the housewives of other States of this country. We feel that those are illustrations of the meaninglessness of this.

So long as our wives know that those commodities that they buy are safe, because Food and Drug says they are safe, we take their word for it. We think it is adequate.

Mr. WILLIAMS. I will state for the information of the committee that I am informed that you are a brother of the senior Senator from Florida.

Mr. HOLLAND. I am happy to say that I am, sir.

Mr. WILLIAMS. I make the observation here that you have done an excellent job in upholding the family reputation before the committee.

Mr. HOLLAND. You are very kind. Thank you for the privilege of being before you.

Mr. WILLIAMS. Are there any questions? If not, thank you.

The next witness is Mr. Willard M. Fifield. He is accompanied by his Congressman, our colleague the Honorable Billy Matthews, of Florida, who will introduce the next witness.

STATEMENT OF HON. D. R. (BILLY) MATTHEWS, A. REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. MATTHEWS. Mr. Chairman, and gentlemen of the committee, I want to thank you for permitting me this privilege of introducing a classmate of mine at the University of Florida, and one of my highly valued constituents. I want to say, sir, that I am in favor of this legislation which has been introduced by our colleague, Hon. James Haley; as I see it, it is not legislation directed against the consumers of America, it is not legislation devised to harm the health and safety standards that we all prize highly for the consumers, but it is legislation which is designed to make it unnecessary for our producers to participate in a labeling requirement that is impractical.

Our speaker is the Honorable Williard Fifield, provost of agriculture for the University of Florida.

He gave a definition of an expert one time, Mr. Chairman. I don't want to call him an expert. If I may be permitted, according to his statement, an expert is someone like this: "The 'X' is the unknown quantity and a 'spert' is a drip under pressure."

But if my colleague would permit me, I say that I still think despite that definition he could qualify as an expert because as provost of agriculture he heads up in Florida our 18 experiment stations, our great agricultural extension service, and the teaching division of the College of Agriculture at the University of Florida. He has been connected with agriculture for 28 years in various fields. I am sure that he will be able to give the committee some interesting information.

Mr. Chairman, if there are no other questions, I would just like to sit down and let Mr. Fifield take over.

Mr. WILLIAMS. Thank you very much.

Mr. Fifield, if it is possible for you to give us the sense of your testimony extemporaneously, we could let the entire text of it appear

in the record as if it were given before the committee. I will leave that to your judgment.

As it appears now, the committee will probably be compelled to adjourn within about 30 minutes. We still have 3 or 4 witnesses left to be heard.

With that in mind, I am pleased to recognize you, Mr. Fifield, for your statement.

STATEMENT OF WILLARD M. FIFIELD, PROVOST FOR AGRICULTURE, UNIVERSITY OF FLORIDA, GAINESVILLE, FLA.

Mr. FIFIELD. Thank you, Mr. Chairman, and gentlemen. If the committee will accept Congressman Matthews' qualification of my statement, I can dispense with a considerable part of it in the record.

The first three paragraphs of this deal with my own qualifications, which I will omit.

Our American land-grant colleges and universities definitely are concerned with governmental regulations relating to the production, handling, and marketing of fresh fruits and vegetables.

While the agricultural teaching, extension, and research divisions of these institutions are not as a rule charged with the promulgation and enforcement of regulatory measures, they invariably are involved in the accumulation of data which afford much of the scientific background for such regulatory measures, and also in the educational program of familiarizing producers and consumers with the provisions and purposes of such measures.

The advent of the Miller bill providing tolerances for residues, for example, compelled considerable extra effort on the part of experiment station and extension service people in developing information as to how certain pesticides can be used effectively by farmers and still insure that residues would not exceed prescribed tolerances.

Similarly, university agricultural scientists are much involved in matters of seed certification fertilizer and insecticide laws, market grades and standards, and public price controls.

Consequently when regulatory measures are enacted or interpreted which influence market acceptability or rejection of these products of the soil, it is natural for the land-grant institution to evidence a strong interest.

A brief description of typical operational procedure will illustrate this scope of interest. Agricultural activities of the land-grant institutions are carried out through three primary divisions, the agricultural experiment station, the agricultural extension service, and the resident instruction division (college of agriculture proper).

Each is charged with certain responsibilities by statute, and each receives public appropriated funds for carrying out these responsibilities.

The operational process normally begins with the experiment stations, where, once a problem is identified, research is begun seeking the solution.

When the tests are completed, the results are published as bulletins or scientific articles in journals, for the information of the public.

If these results are of a nature that is immediately applicable for assisting producers or consumers, the results are disseminated by the Agricultural Extension Service, through various media of communi-

cation—newspapers, magazines, group meetings, radio and television. Concurrently, these experimental results are incorporated in lectures given students in residence at the college of agriculture, and eventually, where significant, find their way into textbooks. Thus all three divisions are involved in the process when new information becomes available.

Over the years researchers have had insistent demands to develop means whereby fresh fruits and vegetables, throughout the complicated marketing process, could reach consumers at the lowest possible cost consistent with high quality. Waste and spoilage along the way invariably increases consumer cost for the remaining produce, and lowers returns to the grower.

Fresh fruits and vegetables are not only perishables but like fresh eggs, they are living tissues. Many contain seed or other reproductive tissue which when planted will produce new plants. It is important that this factor be kept in mind when comparison is made with the handling of processed foods which are usually packaged for the retail trade in sealed containers with entirely different shelf-like characteristics.

The manufacturer of processed food products is in a much better position to stabilize prices in relation to cost than is the farmer of the fresh market trade who is almost wholly at the mercy of the daily supply and demand situation.

Fresh produce is more subject to periodic fluctuation in both availability and demand, and therefore, to frequent variations in price. Likewise, it is subject to great variation in quality and proportionately to more waste along the way from producer to the retail store.

For these reasons public agricultural research and extension agencies devote considerable time and effort to means of reducing the uneconomic impact of these variables.

The quality of oranges and tomatoes for example, as they arrive in the retail store, has been influenced by many factors, Varietal characteristics, fertilizer treatment, pest control, methods of grading and packing, protection in transit, handling by wholesalers and retailers, and even appropriate store display—all these influence quality and price. Eventually all these factors and others affect returns to the grower.

The use of chemical substances for retaining freshness and inhibiting decay is not a new development. In the first place, any substance is a chemical substance. Ice, soap and water, oxygen, carbon dioxide and waxes are chemical substances.

So, for that matter, are the fruits and vegetables themselves.

Some of the research-developed new fungicides, which definitely retard decay when applied as postharvest treatments and used properly, have been shown not to be harmful to humans from the standpoint of the minute quantities of residue which might remain on the produce.

Yet, in a recent interpretation of the existing Federal Food, Drug, and Cosmetic Act, administrators of this act have declared them to be "chemical preservatives" within the meaning of existing statutes, and although within the residue tolerances also legally established they are declared nontoxic; nevertheless, it is now required that fresh fruits and vegetables so treated must be labeled, either individually or in containers, or with a placard on the bulk display bin in

the retail store, so that the purchaser will be advised of the technical name of the fungicide or fungicides with which they have been postharvest treated.

This, of course, added to the marketing cost and particularly would be a problem for growers who ship relatively small amounts of produce. Furthermore, I believe there will be testimony presented to this committee to the effect that some substantial wholesalers and retailers, because of the recent ruling, are now refusing to receive produce so treated, partly because of the nuisance and extra cost of compliance for labeling and partly because of their own legal liability hazard in the event placards are misplaced or various lots of produce become inadvertently mixed in display handling.

This development poses a real problem for research and extension workers.

If, after scientific and educational endeavors to perfect nonharmful postharvest fungicidal treatments, it is found that there is a prejudice against them in trade channels because of labeling requirements, or even a boycott in some instances, it raises a question as to whether public funds spent on such research is justified.

Certainly the demand on research workers for treatments which will get fresh produce on the market in better condition has not abated.

It was felt by many competent authorities that under provisions of the Miller bill the problem was fairly well resolved to almost everyone's satisfaction. Now we are faced with the dilemma that while fresh fruits and vegetables treated with insecticides and fungicides before harvest can be sold without labeling, and postharvest treatment with insecticides likewise can be sold without labeling, yet postharvest fungicidal treatments must be so labeled.

To me this interpretation does not seem at all consistent. Certainly it has resulted in needless extra expense, curtailment of market outlets, and complicated enforcement procedures.

Definition of terms, understandably, is frequently a debatable issue. However, I believe most land-grant college agricultural workers consider the term "chemical preservative" as one applied to processed products, such as the use of benzoate of soda in fountain sirups and propionic acid in bread. We do not ordinarily use the term in connection with pesticides on fresh produce.

Because of this recent ruling under existing law, our extension people, working with producers and packing shed operators, are rather uncertain as to what recommendations to make on use of postharvest fungicides. They can advise their use within safe limits so far as beneficial effects on carrying quality is concerned, but at the same time must warn that if produce is so treated, it may be rejected in substantial trade channels because of the labeling complications.

The research administrators likewise are now uncertain as to how much experimental work should be continued on such projects, in face of tremendous demands also made on them for other work.

I definitely recommend passage of H. R. 9521. Its adoption will not jeopardize public health, and by alleviating existing administrative impediments, will permit our fresh fruits and vegetables to be marketed in the normal manner with retention of quality and a minimum of waste.

Two of my research colleagues at the University of Florida also are submitting written statements for the consideration of your committee, in support of this needed amendment, H. R. 9521.

One is Dr. William Grierson, associate chemist at our citrus experiment station at Lake Alfred, Fla.

The other is Dr. B. D. Thompson, assistant horticulturist in the department of vegetable crops at our main station in Gainesville. Both of these gentlemen are qualified scientists and are actively conducting research on the effect of chemicals on the keeping quality of fresh fruits and vegetables. Their statements have my full approval.

Mr. WILLIAMS. If there is no objection, the committee will be happy to receive those statements.

(The documents referred to follow:)

STATEMENT OF WILLIAM GRIERSON, PH. D., ASSOCIATE CHEMIST, CITRUS EXPERIMENT STATION, LAKE ALFRED, FLA.

I am currently a member of the staff of the Florida Agricultural Experiment Station and am in charge of fruit handling research at the citrus experiment station, Lake Alfred. My qualifications include the degrees of bachelor of science in agriculture (Horticulture) from the Ontario Agricultural College, master of science in agriculture (plant physiology) from the University of Toronto, and Ph. D. (Pomology) from Cornell University. I have conducted research in the field of fruit handling, storage, and marketing since 1938 and am author of 20 or more technical publications in this field. My experience has included research on both citrus and deciduous fruits.

Extensive research programs by both State and Federal agencies have developed treatments that (while meeting all F. D. A. residue and toxicity requirements) substantially reduce the losses that continually harass the dealers in fresh produce and their customers. The methods developed have been keyed to existing, and apparently approved, marketing methods. Research workers from both land-grant colleges and Federal agencies have (to the best of the writer's knowledge) never sought relaxation of the food and drug law and have been able to regard themselves as closely allied with the Food and Drug Administration in seeking to provide the customer with better and more reliable fresh produce.

One of our more urgent research programs has been directed towards finding ways to reduce the high rate of fruit spoilage that normally occurs in the hands of the fruit dealers and their customers. The need for such a program is shown by the fact that over a period of 6 years our 70° F. holding tests for oranges have averaged 35 percent decay. That this is paralleled in stores and homes is shown by a recent test carried out by the USDA Biological Services Branch with untreated Florida oranges received on the Washington, D. C. market. In this test 17 percent decay occurred in the first 6 days after removal from the refrigerator car. Tender citrus fruits such as tangerines, Temples, and tangelos are accounting for an increasing proportion of fresh citrus shipments. Without postharvest chemical treatments losses with such varieties are considerably higher. That such losses are quite unnecessary is shown by the fact that treatment with sodium o-phenylphenate plus hexamine or with diphenyl (at levels approved by the Food and Drug Administration and certified as useful by the USDA) can reduce intransit and market losses by approximately 80 percent. Often even better results are obtained. The Florida Citrus experiment Station has shipped experimental lots of tangerines to Antwerp, Belgium, with less than 1 percent loss on arrival and 3 percent loss after 1 week in a fruit dealer's warehouse. Expressed in other terms, we now have safe and approved methods whereby the housewife who shops once a week can be assured that the citrus she buys will last from one shopping day to the next.

Use of these improved methods has been imperiled by a recent interpretation of a long-standing law. Section 403 (k) has not been amended for 20 years and, until recently, has not been interpreted as applying to postharvest fungicides on fruits and vegetables, despite the fact that such practices were used at the time that Congress passed this law. It is undeniable that the use of such protective measures is advisable on many types of produce as a general measure. For

some crops or at special times judicious use of fungicides can prevent occasional disastrous losses, as when unseasonal rains cause a dramatic increase in stem-end rot of oranges or when a freeze such as we in Florida have just experienced stimulates subsequent losses from penicillium molds. At such times growers and shippers turn to their State experiment stations for help. Improved methods are ready and approved as safe, but the shippers can seldom use them because the major chain stores say they (and their customers) will have to accept these high losses because the labeling regulations laid down by the PDA are quite unworkable. (Attention is drawn to the statement submitted by Mr. Frank Chase of Chase & Co.) Such situations can be found all over the Nation incurring continual unnecessary losses to the consumer and the loss of millions of dollars spent on tax-supported research. (Attention is drawn to the statement submitted by Dr. L. G. MacDowell of the Florida Citrus Commission.) We have been told this policy to tighten regulations (or, more accurately, to interpret an existing law) is based on customer demand. As a research worker, the writer has had to listen to many bitter criticisms from consumers on the subject of decay in fresh produce, but never to any spontaneous comments on fungicide labeling or the lack thereof.

It is respectfully suggested that some more practical approach to the use of FDA-approved postharvest fungicides be considered. If distinctions are to be made, it is hard to justify different legalistic approaches to the use of fungicides applied prior to harvest or a few minutes after harvest, or to fungicides as opposed to insecticides (although the same chemical may sometimes be used in either role) while ignoring the enormous differences involved in handling living, as opposed to nonliving, products. Fresh fruits and vegetables are alive, respiring, taking in oxygen and giving off carbon dioxide and water vapor and must remain so if they are to reach the customer in acceptable condition. To demand that such living organisms be handled exactly as for inanimate packaged material such as ketchup, bread, or canned beans may be an administrative convenience, but it ignores the commercial and scientific facts involved.

Discussion of "intent of Congress" is perhaps not within the technical scope of a scientific witness. Nevertheless, it is axiomatic that, with regard to the food and drug law, the primary intent of Congress is the protection of the customer. It follows that, if the customer is to be protected against unnecessary and excessive spoilage in fresh produce, it appears to be imperative that if the existing law cannot be interpreted to allow normal commercial handling of fresh produce treated with FDA approved fungicides, then the law should be modified to this end.

STATEMENT OF BUFORD D. THOMPSON, PH.D., ASSISTANT HORTICULTURIST, FLORIDA AGRICULTURAL EXPERIMENT STATIONS

This statement is based on experimental work by the writer and observations made during the approximately 10 years he has been employed as assistant horticulturist with the Florida Agricultural Experiment Stations. In recognition of professional training, he was awarded the degree of BSA from the University of Florida in 1948, the MSA in 1949, and the Ph. D. in 1954. Most of his experimental work has been conducted in the field of postharvest handling and preparation of vegetables for market. He is currently teaching a course in handling techniques and methods in marketing fresh vegetables.

The fresh vegetable industry of Florida and many other areas of the country is largely dependent upon the delivery of high quality produce to consumers many hundreds or thousands of miles from the place of their production. This industry has reached a position of being able to provide a great variety of fresh vegetables to the consumer at any season of the year. The development of refrigerated transportation has made this possible. But the rapid expansion and growth of the industry has resulted in part from a recognition of the value of fresh fruits and vegetables in the diet, and an awareness by the consumer of the quality value he is able to secure.

The production of vegetables is an expensive operation, particularly in those areas which produce the so-called off-season crops. The most expensive phase of vegetable production, aside from the risk of weather and poor markets, is the harvesting, packaging, and delivery to the consumer. Despite all efforts expended during this phase, spoilage is excessive. Decay losses in transit alone are estimated by the USDA in Circular 773 to be about 3 percent, based on inspections made on arrivals in New York City. This would amount to almost $10 million annually on this one market. According to the USDA Yearbook of

Agriculture for 1954, on pages 377 to 381 and 382 to 388, additional losses in the retail store range from 8 to 24 percent, depending on the vegetable. Housewives in Knoxville, Tenn., are reported to have discarded from 8 to 15 percent of the fresh fruits and vegetables purchased. Thus, statements such as those made by William Kling, of War Food Administration, in the Journal of Farm Economics in November 1943, are not unreasonable, although shocking. He estimated that potato wastes were 28 percent; tomatoes, 33 percent; green and yellow vegetables, 43 percent; and all fruits and vegetables, about 20 percent; or $800 million annually at 1942 prices. These are physical, discernible losses. Losses in vitamins, moisture, and nutrients are less evident but they, too, occur, and their reduction is the object of much research.

Why do these losses occur? Fresh vegetables are living organs, plants, or plant parts. As such, they are exceedingly perishable. They continue to perform the function of respiration, as well as other biological processes, after being harvested. This process of respiration is largely responsible for the loss of vitamins and nutrients noted above. It is also an aging process, in which the vegetables become increasingly more susceptible, in general, to attack by decay-producing organisms. Often, during respiration, certain byproducts of the process accumulate, and these produce undesirable odors and flavors in the vegetables. This phenomenon is often responsible for the fermented flavor and odor found in some fruits and vegetables. Refrigeration will, in general, retard the rate of respiration, and this practice, adequately employed, is responsible for the delivery of high-quality sweet corn from Florida to Washington for Christmas. Research has shown, however, that many vegetables cooled to temperatures which effectively reduce the rate of respiration are subject to a physiological disorder referred to as "chilling injury." This injury is generally characterized by surface pitting, increased susceptibility to decay, and internal darkening of tissue. All symptoms may not always occur, or may occur in varying degrees. Thus, it is not always possible to prevent nutritional or palatability losses by the utilization of refrigeration.

Micro-organisms are causal agents for the greater portion of the losses of fresh vegetables. Many of these are the same organisms that produce diseases in the field. Infection may have occurred prior to harvest, and the disease remained in a latent condition until some portion of the marketing period when the environment became favorable for its development. The spores of the organism or bacteria may remain attached to the vegetable, or be transferred from a diseased portion overlooked during grading, or from numerous other sources. In any event, the causal agent for decay, whether from field diseases or other organisms, may be present at the beginning of the marketing period or may be added at any point. If environmental conditions become favorable, decay will begin to develop. An additional factor in the development of this decay is the great susceptibility of many vegetables of high quality to physical damage by handling. Breaks, scuffs, or bruises provide a ready entrance to the organisms of decay. The economic situation has hastened the development of mechanization, and this has, in many cases, increased mechanical damage to fresh vegetables.

Again, refrigeration generally retards the development of decay, and this is one of the primary reasons why refrigeration has been the cause of the development of vegetable-production areas far removed from major markets. However, all vegetables cannot be refrigerated to such temperatures as effectively control the development of decay. Chilling injury again enters the picture. Also, many ogranisms causing decay of fresh vegetables will also continue to develop at ordinary, practical, refrigeration temperatures. Producers and shippers rarely can control the temperatures to which their vegetables are subjected during the marketing period, even though they may specify or recommend certain practices.

The use of chemicals to retard the development of decay of vegetables has a potential that is just beginning to be realized. Some vegetables receive a treatment, but relatively few are used at the present time. The development of such practices could, however, result in a considerable reduction of the millions of dollars lost to decay each year. The writer has found that a dip of 30 seconds in less than a 1-percent solution of the sodium salt of dehydroacetic acid would reduce the decay of strawberries from 100 percent to less than 10 percent under conditions conducive to the development of the decay. Preliminary results have shown that sodium orthophenylphenate applied as a postharvest dip markedly reduced the decay of cantaloups during marketing. Other preliminary work has shown this material to be effective in controlling decay of sweetpotatoes during

storage. This observation has been confirmed by Kushman and Ramsey, of the USDA, as published in the February 15, 1958, issue of Plant Disease Reporter. The bacterial rots are very important in decay losses of fresh vegetables, and the use of antibiotics could be an important development in their inhibition. Smith, of the USDA, has reported on the use of antibiotics on consumer packages of spinach on page 88 of volume 45 of Phytopathology. Work by the writer has shown that a serious discoloration of radishes, presumably caused by a bacterial organism, can be very effectively controlled by certain antibiotics. Bacterial rots of cantaloups, sweetpotatoes, lettuce, potatoes, and other vegetables have also been controlled by antibiotics in laboratory tests. Some of this work has been reported in the annual reports of the Florida agricultural experiment stations for 1956 and 1957.

Deterioration of many fresh vegetables by the loss of moisture has been inhibited by the application of waxes. This has been practiced for many years, and solvent and water-emulsion waxes of petroleum and vegetable sources employed. Labeling has been required for colored waxes for potatoes. The bulk-package inserts, however, have often been used to line the bottom of the display bin in the retail store rather than to inform the consumer of the colored wax applied to the potatoes.

In our currently accepted methods of marketing, vegetables very often arrive at the retail store 1, 2, or 3 containers removed from their original shipping containers. They may be regarded, resized, packed into smaller containers, ripened, or otherwise sorted into special orders. Bulk-package labeling would be quite impractical under such conditions, and piece labeling of most vegetable almost impossible for any reason. Even if delivered to the retail store in the original container, it is doubtful that the product would be long associated with any insert material. Display and merchandising methods, in-store prepackaging, and the general level of responsibility of store help would preclude practical usage.

It is the opinion of the writer that labeling requirements for the application of materials for the inhibition of deterioration of fresh vegetables is impractical and, generally, unnecessary. Some type of labeling may be possible, but the result of such a requirement would probably be to force the abandonment of any treatment. It is possible that such a reaction would cause further increases in spoilage wastes, resulting in higher prices paid by consumers for vegetables of probably poorer quality. Further economic losses would result from wasted years and dollars of research.

I believe that the consuming public is adequately protected by the Miller amendment of the Food, Drug, and Cosmetics Act. It has been the experience of the writer that any materials contemplated for use on fresh vegetables are effective in concentrations measured in a few parts per million, whereas preservative solutions originally covered by section 403 (k) are generally measured in thousands of parts per million.

In view of the aforementioned facts and opinions expressed by virtue of experience and training, I believe that the best interest of the United States of America, its consumers, and its producers of fresh vegetables will be served by the enactment of the proposed legislation to exempt pesticide chemicals used on raw agricultural commodities which are the produce of the soil from the provisions of paragraph (k), section 403, of the Food, Drug, and Cosmetics Act, as amended (21 U. S. C. 343 (k)).

Mr. WILLIAMS. Are there any questions?

If not, thank you very much, Mr. Fifield.

The next witness will be Mr. Frank Chase, citrus grower and packinghouse operator, Windemere, Fla.

STATEMENT OF FRANK CHASE, CITRUS GROWER AND PACKINGHOUSE OPERATOR, WINDEMERE, FLA.

Mr. CHASE. Mr. Chairman, my name is Frank Chase. I am a citrus grower and operator, packinghouse operator. I am a member of the Florida Citrus Commission, which is a State agency, and I have served on its research committee for 8 years. Due largely to climatic conditions, Florida citrus and vegetables have always been plagued

with decay in transit as well as relatively short shelf life. Records of Chase & Co. of which I am a large shareholder and director, and which has been in the produce business in Florida since 1884, reveal that many carlots of citrus and vegetables have been abandoned or heavily discounted because of decay in transit.

These were losses borne directly by the shipper or the grower. The losses borne by consumers through decay are probably much greater.

For many years various methods of handling and different types of treatments have been tried in efforts to control decay in fresh produce. In 1953, a method of treating fruit with sodium-o-phenylphenate, which was developed at the University of Florida Citrus Experiment Station, under the auspices of the Florida Citrus Commission and financed by the entire Florida citrus industry, was installed in our citrus packinghouses located in Sanford, and near Windermere, Fla.

This method of treatment, the first stage in the operation in our packinghouse machinery, has been used ever since the treatment first proved its effectiveness. It has reduced decay, 3 weeks from picking, by approximately 80 percent. The benefits to the consumer of this increased life of the fruit cannot be exaggerated in terms of dollars and cents. Also such benefits are shared economically by the growers.

Ever since the recent interpretation by the Food and Drug Administration that fruits so treated must be labeled or placards displayed in the store, the major chainstores, the largest and most efficient distribution outlets for Florida produce, have refused, except in the case of special experimental packages to handle produce so treated.

Under the legal circumstances associated with these interpretations, this refusal by chainstores to handle such fruit is understandable, since loss or temporary disappearance of the placards bearing the required statement, or the inadvertent placing of fruits not treated under the placards, subjects the stores to very severe penalities of misbranding. Thus many millions of chainstore customers, virtually all of whom are consumers of Florida produce, are not only denied the privilege of purchasing a superior product, but they are forced instead to buy an inferior one and to suffer the economic loss due to frequent premature and unnecessary decay of their purchases.

Since chainstores are their principal customers most Florida shippers feel that they must forego the opportunity of supplying domestic consumers with the better and more wholesome product, which can be supplied by treating the fruit.

As the demand of foreign markets is limited to certain smaller sizes, and as there is no practical way of separating such sizes before treatment in normal packinghouse operations, Florida citrus factors have suffered greatly in foreign markets from the competition from other countries, all of which use treatments to control decay.

Citrus packing and marketing constitute the smaller portion of Chase & Co.'s business. The organization packs and markets many varieties of vegetables in Florida, as well as peaches in Georgia and celery in New York State.

Research is currently developing methods of treatment for many kinds of fruits and vegetables to insure the consumer against loss from decay. Under the present law and the whimsical interpretations being made by the Food and Drug Administration, despite the

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establishment of safe residue tolerances for pesticides used to reduce decay, neither the consumer is receiving nor the grower shipping the very best produce to which they are both entitled.

The so-called Miller bill certainly affords ample and necessary protection for the consumer's health.

Further regulations as to labeling and other declarations falsely imply danger, thus deterring the consuming public from buying better and more wholesome fruits and vegetables.

The solution to this problem will be the enactment of H. R. 9521, a bill to amend paragraph (k) of section 403 of the Federal Food, Drug, and Cosmetic Act, as amended, to define the term chemical preservative as used in such paragraph, which our company and other similar organizations in Florida wholeheartedly endorse and approve. Such legislation will grant the fruit and vegetable industry the relief it needs from this unreasonable and unrealistic administrative ruling, which is hindering progress and costing growers and consumers inestimable sums.

Mr. Chairman, I would also like to insert into the record the statement of Dr. L. G. MacDowell, who is director of research for the Florida Citrus Commission, and also the statement of R. V. Phillips, secretary-treasurer of the Florida Packinghouse Managers' Association.

Mr. WILLIAMS. The committee will be glad to receive those statements.

(The documents referred to follow:)

STATEMENT OF L. G. MACDOWELL, PH. D., DIRECTOR OF RESEARCH, STATE OF FLORIDA, FLORIDA CITRUS COMMISSION

I have read and studied the statement of Dr. W. Grierson, associate professor, University of Florida, in support of H. R. 9521, and I concur with his comments and remarks on the subject.

In addition, I would like to emphasize that the Florida Citrus Commission, an agency of the State of Florida, in cooperation with the University of Florida's Citrus Experiment Station, has continuously conducted research on the prevention of decay in citrus fruits since 1943. During this period, these two State agencies together have spent in excess of $350,000 in the search for a safe, practical and effective method of reducing decay in the shipment of fresh oranges, grapefruit and tangerines. It is our considered opinion that widespread industry application of the successful results obtained has been prevented by the Food and Drug Administration's interpretation of section 403 (k) of the Federal Food, Drug, and Cosmetic Act.

STATEMENT OF R. V. PHILLIPS, SECRETARY-TREASURER, FLORIDA CITRUS PACKINGHOUSE MANAGERS ASSOCIATION

Florida citrus being subject to stem end rot, blue mold, and such forms of decay, economic losses inevitably occur at certain times unless decay control measures are used. The economic necessity of such measures was acknowledged when the Food and Drug Administration granted tolerances covering the use of diphenyl and sodium o-phenylphenate.

Nevertheless we have not been able to use such methods, as the large chainstores which are our principal customers refuse to buy Florida citrus subject to the labeling regulations imposed under section 403 (k).

Permission was given for use of fungicides without labeling for fruit being shipped export. This proved utterly impractical, as sizing is the last packinghouse treatment prior to packing. Thus all sizes have to be treated if the small fruit (desired by export buyers) is to be treated. Since domestic buyers could not be found who would agree to the labeling regulation, the nonexport sizes could not be sold.

Thus Florida citrus has had to be shipped export to European markets without protection from the sodium o-phenylphenate-hexamine process. This is most ironic, as a great many of our foreign competitors on that market use this method, which was developed at great expense by the Florida Citrus Commission using money contributed solely by Florida growers and shippers.

The above statement is made with full authority of the membership of the Florida Citrus Packinghouse Managers Association, which represents more than 85 percent of the volume of citrus shipped from the State of Florida.

Mr. WILLIAMS. Are there any questions?

If not, thank you, Mr. Chase.

The next witness is Mr. A. M. Boyce, director, citrus experiment station, University of California.

STATEMENT OF A. M. BOYCE, DIRECTOR, CITRUS EXPERIMENT STATION, UNIVERSITY OF CALIFORNIA, RIVERSIDE, CALIF.

Mr. BOYCE. Mr. Chairman, and gentlemen of the committee, my name is Alfred M. Boyce, I reside at 7125 Delaware Street, Riverside, Calif.

My title is director of the citrus experiment station, professor of entomology and entomologist in the agricultural experiment station of the University of California.

I am appearing before the Health and Science Subcommittee in support of H. R. 9521, introduced by Mr. Haley. A companion bill (S. 2880) has been introduced in the Senate by Mr. Holland. I would like to briefly outline certain principles governing the use of chemical treatments for protection of perishable agricultural commodities; particularly as these principles relate to administrative interpretations of the Federal Food, Drug, and Cosmetic Act.

Several different adverse factors may, collectively or independently, contribute to the deterioration of raw agricultural commodities during the processing and marketing operations. Insects, fungi and bacteria may feed upon virtually every stored foodstuff, and either directly, or by their soilage, render it unfit for consumption.

An unfavorable environment during the postharvest period may retard or accelerate the ripening process in numerous perishable products, deleteriously affecting their appearance and palatability.

And finally, physiological factors arising from within the commodity itself may bring on external signs of senescence without adversely affecting the quality of the product itself.

As an example, we might cite the deterioration brought about by beetles which inhabit and feed upon grains, flour, and dried fruits and nuts. The loss in the United States from these pests alone was estimated to be $150 million annually between the years 1940 to 1944.

With perishable food products, the losses are purported to be even greater; 1 out of every 5 acres produced is not consumed because of waste or spoilage of some kind.

Although it is true that careful handling and adequate refrigeration may greatly reduce this waste, these practices do not alone provide a completely satisfactory solution to the problem.

In certain instances, it is mandatory that some chemical treatment be superimposed upon even the best handling practices if raw agricultural commodities are to reach the consumer in a wholesome and palatable state and at a competitive price.

I would like to emphasize that these chemical treatments are not intended to act as substitutes for careful handling and refrigeration, but, rather, are meant to complement them.

In other words, these chemical treatments fulfill a need that is not within the scope of even the best processing and shipping practices. Furthermore, these chemical treatments do not make it possible to market produce of inherent poor quality.

Let us examine several instances in which chemical treatments are required for successful marketing of a commodity. Grains and other dried foodstuffs may be contaminated with insects while held in storage. Under section 402a of the Federal Food, Drug, and Cosmetic Act, foodstuffs containing excessive numbers of insects and their excrement are deemed adulterated. In order to prevent such a situation, these stored grains are commonly fumigated with such chemicals as methyl bromide, chloropicrin, and ethylene oxide.

Fresh fruits and vegetables unavoidably become contaminated with decay-producing microorganisms during the harvesting and packing operations. Unless some chemical treatment is applied shortly after these organisms gain entrance, infested fruit or vegetables will sooner or later decay regardless of the better or best conditions of refrigeration.

For example, citrus fruits are commonly washed with dilute solutions of sodium hypochlorite, sodium carbonate, borax, and sodium o-phenylphenate to help prevent this decay.

Produce handlers and shippers have recognized for decades that the sole purpose of these chemical treatments is to partially sterilize the surface of the fruit with respect to the decay-producing organisms.

Careful handling and sanitary conditions must prevail after these washes in order to prevent recontamination and infection. Biphenyl has been effectively employed for almost 20 years to economically control decay of lemons and oranges during transit to market. This material is formulated as an impregnated paper sheet which is placed in the shipping container at the time the fruits are packed. Vapors arising from the biphenyl-treated sheet fumigate the fruit with a fungistatic vapor which retards growth of several decay-producing fungi during the transit period.

However, even this effective material does not obviate the need for recognized "good handling practices" for the fruit are unprotected once they are removed from the shipping container and offered for retail sale. In principle, the biphenyl treatment is analagous to the fumigation of stored grain as mentioned above.

That is, both treatments effectively control deterioration only so long as they remain around the perishable commodity. Once the treatment is removed, both are subject to further deterioration—the grain by insects; the fresh fruit by certain fungi.

It was mentioned earlier in this statement that fresh produce may deteriorate due to physiological changes arising with the living fruit or vegetables themselves. In the case of lemons held in storage, there is a marked tendency for the button to degenerate and abscise.

This phenomenon per se has no direct effect upon the internal quality of the fruit. However, since this structural weakness in the lemon fruit offers a point of entry for the decay-producing Alternaria fungus, this factor is of the greatest economic significance.

Several years ago, the important discovery was made that the vitality of the lemon button could be maintained for a limited time by dipping the fruit prior to storage in a weak solution (500 parts per million) of 2,4-dichlorophenoxyacetic acid. It is of utmost significance that this chemical has no direct effect (in the sense of a preservative) upon the Alternaria fungus, but rather upholds the vitality of the button to the point that the lemon itself wards off attack by the decay-producing fungus.

At this point I would like to reemphasize the fact that the postharvest chemical treatments specified above are absolutely necessary for the maintenance of high quality perishable products.

SAFETY OF POSTHARVEST CHEMICAL TREATMENTS TO CONSUMER

There is no question as to the safety of currently used postharvest decay control chemicals. All of these materials have been granted safe tolerances or tolerance exemptions under section 408a (Miller amendment). Furthermore, this section of the code specifies that—

> while a tolerance or exemption from tolerance is in effect for a pesticide chemical with respect to any raw agricultural commodity, such raw agricultural commodity shall not by reason of bearing or containing any added amount of such pesticide chemical, be considered to be adulterated within the meaning of clause (1) of section 402 (a).

In view of this acknowledgment of safety of postharvest pesticides regulated under the Miller amendment, together with the fact that many of these treatments were used prior to the establishment of the Federal Food, Drug, and Cosmetic Act in 1938, it is difficult to understand the recent FDA ruling that we must now consider many of these chemicals as preservatives.

Regulations promulgated under section 403 (k) of the Federal Food, Drug, and Cosmetic Act state that—

> The term "chemical preservative" means any chemical which when added to food, tends to prevent or retard deterioration thereof: * * *

Unless compliance can be shown to be impractical, labeling of foods treated with such preservatives is mandatory.

In the opening remarks of this statement, I endeavored to show that postharvest pesticides control deterioration by disinfesting, decontaminating, or temporarily retarding decay of the treated product. Residues remaining as the result of such treatments are unintentional and incidental to the purpose of the treatment.

Clearly then, there can be no analogy between prevention of deterioration by postharvest pesticides and the intentional addition of such chemicals as benzoates and propionates to processed foods for purposes of preservation.

When placed in the hands of the consumer, both chemically treated and untreated fruit and vegetables are in equal jeopardy of deterioration if reinfested with a parasitic organism. Any attempt to imply otherwise by labeling such commodities "X chemical added as a preservative" appears to be grossly misleading to the consumer.

Several other points regarding the interpretation of the term "preservative" as defined in regulations under section 403k are equally perplexing.

Officials of the Food and Drug Administration construe the term preservative to include all fungicides applied to crops after harvest,

I understand, yet, they explicitly exclude insecticides used in the same manner from this definition.

Such an interpretation is difficult to understand from several viewpoints. Firstly, it has been pointed out that the activities of both insects and fungi cause great losses to crops after harvest.

Why should it be that a chemical which protects crops from deterioration by fungi be considered a preservative, while another chemical which prevents deterioration due to insects is not a preservative at all?

It is understood, of course, that this distinction bears absolutely no relation to the relative safety of fungicides and insecticides to the health of consumers. This issue is still further confused by the fact that a single chemical may function very effectively as either an insecticide or a fungicide.

This is certainly the case for fumigants such as ethylene oxide and chloropicrin, which are presently used as postharvest treatments for spices and grains, respectively.

It is my understanding that section 403k was legislated to provide consumers with a means of identifying foreign substances added to food products for preservation.

An inconsistent and biased interpretation of the term "preservative" would not appear to implement such an objective, but rather would seem to mislead the consumer to the conclusion that only the chemicals declared on the label were actually present on the product. Such a conclusion is obviously erroneous.

It is not within the scope of my statement to delve into the "Practicability of compliance" clause of section 403k. However, I would like to verify the fact that citrus fruits packed at California shipping points are subjected to as many as 4 to 5 different treatments, depending upon the fruit lot and the season of the year. All of these treatments would require label declaration under the present interpretation of section 403k.

Most California citrus fruits do not receive all of the treatments. In fact, a substantial amount of the fruit receives no treatment at all. These variable treatment requirements are due to a complex of factors none of which is well understood.

Climatic and other seasonal environmental effects in the different localities where navel and Valencia oranges, lemons, grapefruit, and tangerines are grown are influencing factors as well as rootstocks, clonal varieties and cultural practices; application of safe postharvest chemical treatments is left to the discretion of the responsible packinghouse manager, whose business is to know the condition and requirements of each fruit lot.

When one considers the possible combinations of these 4 or 5 treatments, it is not difficult to visualize the confusion which arises at the retail level. Fruit from many different shipping points and bearing residues of several different postharvest chemical treatments must, under law, be accurately labeled as containing such chemicals as preservatives.

I appreciate the opportunity to present the foregoing facts and opinions before you gentlemen. It is with the best interests of the Nation's agriculture that I sincerely hope that the ambiguities and inconsistencies now existing in regulations of section 403k may be corrected by enactment of H. R. 9521.

Mr. Chairman, Mr. W. C. Jacobsen, director of the State Agriculture Department of California, was intending to be here.

However, he could not be here. He sent a prepared statement which I would like, with your permission, to submit for the record.

Mr. WILLIAMS. The committee will be glad to accept it.

(The document referred to follows:)

STATEMENT OF W. C. JACOBSEN, DIRECTOR, CALIFORNIA STATE DEPARTMENT OF AGRICULTURE, SACRAMENTO, CALIF., IN SUPPORT OF OBJECTIVES OF H. R. 9521

To the Health and Science Subcommittee, House Interstate and Foreign Commerce Committee:

Mr. Chairman, as proposed, H. R. 9521 would amend paragraph (k) of section 403 of the Federal Food, Drug, and Cosmetic Act by adding a new sentence as follows: "As used in this paragraph the term 'chemical preservative' shall not include any pesticide chemicals when used in or on any raw agricultural commodity which is the produce of the soil."

This legislation is very important to the fruit and vegetable growers and shippers of California. In this State the great number of crops, with a correspondingly large number of pests, require use of many pesticidal chemicals. The State has comprehensive laws regulating the use of the chemicals, and these laws have been strictly enforced through the years. The law limiting the quantity of spray residue that is permitted on produce has been in effect over 30 years.

Over the years it has been our belief that "chemical preservatives" has meant materials incorporated within a food product or applied to its surface to inhibit spoilages of a kind which would amount to putrefaction, but has not meant the chemical materials applied directly to, or associated with fresh fruits and vegetables still undergoing living processes whereby to offset fungus or bacterial organisms which can be inhibited, during storage or transportation, by such treatment as refrigeration, gaseous fumigation, or fungistatic association, and when any effects therefrom would be lost or vitiated upon exposure to normal retail store temperatures.

Pesticide chemicals, known through the years as economic poisons, have had special attention insofar as legislative restrictions are concerned, and must meet special requirements before they can be offered for sale. The Miller amendment to the Federal Food, Drug, and Cosmetic Act sets up procedures for establishing tolerances for pesticides; consequently it seems clear to us that residues from pesticidal chemicals should not be classed as chemical preservatives. The special legal requirements for pesticidal chemicals are intended to assure that there is no health hazard involved.

It is not practical to label pesticidally treated fresh fruits and vegetables, that may carry residues designed to inhibit some of the storage or in-transit organisms detracting from the product's appearance, as having been treated with chemical preservations for several reasons. These reasons can be summarized as follows: (1) Fruits and vegetables may be treated with various chemicals, many of which have long complicated names, and because of the size and shape of the produce, it is impossible individually to show the names of the chemical on the individual fruits or vegetables. (2) Different packinghouses may use different pesticidal chemical treatments, all of which have been established as meeting the requirements of law insofar as tolerances are concerned, but when shipments are made to eastern markets, lots may be combined from different packinghouses in order to have a particular size in a particular car lot. This may mean that fruit having several different treatments may be within the same car. Even though the cartons of the fruit were properly labeled, the retailer would have difficulty in checking each container to see that he had the proper placard on the fruit offered for sale. Obviously it would be impossible for the ordinary retail dealer to be able to see that each of the lots was properly labeled, particularly when one container might be different from the next, and all would be set up in the same bulk display.

While serving as chairman, executive committee, National Association of State Departments of Agriculture, I was instructed by that committee to petition the Secretary of Health, Education, and Welfare to take steps to accomplish essentially the result to be attained by the proposed amendment to H. R. 9521. This is mentioned in this statement to indicate the nationwide interest in this

problem since the agricultural regulatory officers in these State departments as a general rule have the responsibility to aid in marketing farm products, and to exert every effort to minimize impediments to the free and safe flow of such products in the available marketing channels. It was the belief of our national association executive committee that the Department of Health, Education, and Welfare could accomplish the same result, either by making an administrative determination, or by providing a specific exemption to that effect. It now appears that the Federal agency believes legislation is necessary to accomplish this result, and for that reason we definitely support same.

We urge passage of H. R. 9521 in order that the proposed amendment will recognize that pesticidal chemicals are a unique class, separate from chemical preservatives, and for the protection of the public do not require labeling of produce as having been treated with a chemical preservative.

Respectfully submitted.

———— ————, *Director,*
California State Department of Agriculture.

MARCH 24, 1958.

MODIFICATION OF LABELING FUNGISTAT TREATED FRUITS

Be it recommended by the western interstate committee on agriculture of the Council of State Governments, meeting at Cheyenne, Wyo., December 10 and 11, 1956, to the Administrator of the Food and Drug Division, United States Department of Health, Education, and Welfare, that action be taken to modify the applicability of section 403 (k) of the Federal food and drug law in accordance with the exemption authority granted whereby to recognize the nonhazardous effects at consumer purchase level of decay preventive chemicals applied to containers, wrappers, and liners for rendering fungistat protection to fruits in storage and in transit, and by such modification to discontinue the labeling requirement for fruits at retail outlets at which point the decay preventive chemical is no longer active.

Mr. WILLIAMS. Are there any questions on the part of the committee? If not, I want to thank you very much, Br. Boyce, for the splendid statement.

The committee will now recess, to reconvene on Thursday, at 10 o'clock, at which time the first 2 witnesses will be the 2 gentlemen that we could not reach today, Mr. Raines and Mr. Baier.

(The following statements were submitted for the record:)

STATEMENT BY JOFFRE C. DAVID, GENERAL MANAGER
FLORIDA FRUIT & VEGETABLE ASSOCIATION, ORLANDO, FLA.

The Florida Fruit & Vegetable Association, a trade association representing more than a majority of the vegetable and subtropical fruit growers and shippers in Florida, urge the enactment of H. R. 9521 in order to alleviate an administrative interpretation and decision by the Food and Drug Administration, with regard to pesticide chemicals and section 403 (k) of the Federal Food, Drug, and Cosmetic Act, which interpretation serves no useful purpose, deters research progress, results in avoidable financial losses by growers, handlers, and more important, consumers of fresh fruits and vegetables, as well as ignores certain fundamental facts of marketing and merchandising fresh produce.

Agricultural interests in Florida aggressively supported and encouraged the passage of Public Law 518 (Miller bill) so that the health and safety of consumers would be assured by the use of only approved pesticide chemicals in the production, storage, and transportation of raw agricultural commodities, and that when such pesticide chemicals were applied in the proper manner, the resulting residues would be well within the legal tolerances which had been established. It is evident by the talk given on September 18, 1957, by Frank J. McFarland, Assistant to the Director, Bureau of Biological and Physical Sciences, Food and Drug Administration, during the seventh annual conference of the Produce Packaging Association (a copy of which is attached), that such principles and practices actually resulted from the passage of Public Law 518 by the 83d Congress.

Special attention is directed to the fifth paragraph on page 3 in which Dr. McFarland states, "Because of the rigorous procedure by which pesticide tol-

erances are established, growers, food processors, packers, and the consuming public can be reassured in the realization that when a tolerance is issued by the Federal Government it means (1) that residues up to the tolerance level are safe; this has been established by adequate experimental studies on animals; (2) that the pesticide can be employed usefully in agriculture without leaving excessive residues; this has been established by the certificate of usefulness furnishes the Food and Drug Administration by the Department of Agriculture, and (3) that when the pesticide is used according to proper direction, it will leave residues that are within the permitted level. We will not issue a tolerance unless there is evidence that it will be met when the pesticide is used as proposed."

The recent administrative decision by officials of the Food and Drug Administration, that irrespective of the addition of section 408 (Public Law 518) to the Federal Food, Drug, and Cosmetic Act, which law had been specifically enacted by Congress to safeguard public health, compliance with section 403 (k) was to be invoked for the first time on pesticide chemicals, when any fungicide was utilized postharvestly in the production, storage, and transportation of fresh fruits and vegetables, caused genuine concern to the fruit and vegetable industries. The initiation of such labeling ruling, after so many years of either nonapplication or different legal interpretation of section 403 (k) by the Food and Drug Administration, was considered by agricultural interests to be both improper and ill advised.

Anyone with knowledge of or experience in the distribution and marketing of fresh fruits and vegetables immediately realized the impracticability of labeling and identification of various lots of produce which have received different fungicides postharvestly. Once Food and Drug's decision requiring labeling at the retail level was announced, distributors, and retailers simply avoided purchasing and displaying fresh produce so handled, as they realized they could not comply with such a policy. This was only a normal reaction in order to escape any legal entanglements and unwarranted publicity concerning noncompliance, which in turn, forced shippers of fresh produce to forego such scientific practices.

A typical example of the dilemma of retailers may be found in the statement to be presented to this subcommittee this date, April 21, 1958, by George W. Jenkins, Publix Super Markets, Inc., Lakeland, Fla. This statement reflects a sincere desire on the part of a chainstore operator to take advantage of research progress that reduces decay losses and benefits both industry and the consumer. However, the threat of unavoidable misbranding violations causes rejection of the opportunity due to the unrealistic administrative decision by Food and Drug that such produce must be labeled—a decision which completely ignores the complex handling and intermingling of various lots of produce at the retail level.

Various segments of the fruit and vegetable industry, separately and jointly, have attempted to obtain administrative relief or modification of this questionable ruling by Food and Drug. All such pleas, regardless of their soundness or supporting evidence, have been arbitrarily rejected.

The reason for labeling postharvest fungicides is stated by officials of the Food and Drug Administration as being necessary solely because such action is required by law (sect. 403 (k)) for the avowed purpose of furnishing the purchasers with information that such fungicides have been utilized. Such a labeling requirement for fresh produce, after the passage of Public Law 518, serves no useful purpose since health and safety is not involved. Its continual enforcement results in needless financial losses for all parties concerned, as well as redundant regulations. In addition, industry groups have never considered pesticide applications to living plant material as being chemical preservatives, and they therefore do not recognize any connection between processed foods for which section 403 (k) was intended to regulate and fresh produce for which it was not intended.

For the Food and Drug Administration to require shippers to continue labeling postharvest fungicides, while at the same time recognizing the impracticability for certain labeling at the retail level, as indicated in the April 4, 1958, Federal Register, results in unnecessary and additional, as well as costly packinghouse practices that should be eliminated and remedied by Congress through the enactment of H. R. 9521.

Even such a restrictive and somewhat misleading proposal, as proposed by the Food and Drug Administration in the April 4, 1958, issue of the Federal Register, avoids recognizing that all fresh fruits and vegetables are handled and sold in the channels of trade similar to citrus fruits, and that equal consideration should be granted to all commodities in parallel or allied relationships. Legislative relief

is obviously needed and required if all fruits and vegetables are to receive comparable and fair treatment on this important matter of the necessity to label postharvest applications of fungicides.

Our members support H. R. 9521 as they conscientiously believe such legislation is the proper and only method to obtain satisfactory and fair relief for all facets of the fresh fruit and vegetable industries. Since apparently it is not the prerogative of the Food and Drug Administration to grant administrative relief under the existing law and it is not conceivable that it was the intent of Congress to require such labeling practices before or after the passage of Public Law 518, the basic law must be changed.

How Pesticide Residue Control Affects Your Business

Paper delivered at seventh annual conference and exposition, Produce Packaging Association, Washington, D. C., September 18, 1957, by Frank J. McFarland, assistant to the director, Bureau of Biological and Physical Sciences, Food and Drug Administration, Department of Health, Education, and Welfare, Washington, D. C.

Mr. Cooper, members of the Produce Packaging Association and guests, I am pleased to meet with you this morning to participate in your session on new developments in produce packaging. As Mr. Cooper has indicated, I am assigned to the establishment of pesticide tolerances under the Federal Food, Drug, and Cosmetic Act. Mr. Cooper has asked that I discuss how these pesticide tolerances affect your produce packaging business.

Some time ago on the way to work I met a friend who asked about my new job. After a brief explanation of my work he said "you mean to say that it's your job to permit the addition of poisons to food." When I ruefully admitted this to be the case, he said it looked as though consumers would be better protected if I spent the day at home rather than at the office. It took a while to convince him that our job was essentially the protection of the consumer through the control of pesticides to insure that no harmful residues would be on food when we ate it. Of course, this protection could be accomplished by outlawing all pesticides on food but this would be impracticable and would result in tremendous loss, insect depredation, defilement, and spoilage of food. It has been conclusively established that use of pesticides is essential to production of the food necessary to feed our population.

The Pesticide Amendment provides a procedure for the establishment of safe tolerances and exemptions from he requirement of tolerances for pesticide chemical on raw agricultural commodities. The procedure applies only to pesticide chemicals, not to other poisonous or deleterious substances, and to only raw agricultural commodities, not to processed foods.

Very briefly, pesticide tolerances are established in this way:

The manufacturer of a pesticide (or some other interested person) submits a petition to the Food and Drug Administration requesting the establishment of safe tolerances for residues of a chemical on specific crops on which it is to be used. With this request he furnishes information about the quantity of residues that will remain on the food. He furnishes information about the toxicity of the residues when consumed over the life span of test animals such as rats or dogs. He asks the Department of Agriculture to certify that the pesticide chemical is useful for the purposes proposed. Within 90 days after the certificate of usefulness is received, the Commissioner of Food and Drugs publishes a regulation which states the amount of pesticide residue that can remain legally in or on the specified crops. That is, the regulation states tolerances for residue of the pesticide. These tolerances are not established higher than reasonably necessary on the basis of the residues shown to occur from the proposed use. They may be established at the level requested, or because of toxicity considerations, at a lower level than requested, or at zero. We may have to require that the proposed use be reduced to meet the tolerance level found to be safe.

Pesticide chemicals are substances which are economic poisons within the meaning of the Federal Insecticide, Fungicide, and Rodenticide Act. They include substances intended for use as insecticides, fungicides, rodenticides, bactericides, and herbicides. On the basis of toxicity these materials fall into four classes: (1) Chemicals that are not considered poisonous as used on crops. Sulfur, lime sulfur, and sorbic acid are in this group. (2) Chemicals that are considered poisonous, but are used in agriculture so that their residues do not present any foreseeable hazard to man. They may be exempted from the requirement of a

tolerance. Most of the common copper compounds have been exempted when they are used on growing crops before harvest. They are not exempted when applied at time of or after harvest. (3) Chemicals that are poisonous but still are safe enough for small residues without dangering public health. Tolerances higher than zero are set for them on specific crops. Captan, the dithiocarbonates, sodium-o-phenylphenate are in this class. (4) Chemicals that have a zero tolerance or its equivalent. Any compound not covered in 1 of the first 3 groups has the equivalent of a zero tolerance. Selenium compounds, mercury compounds, certain dinitro compounds, endrin have formal zero tolerances. If no tolerance higher than zero has been established for a pesticide on a commodity then it has the equivalent of a zero tolerance on that commodity and any amount of residue would be illegal. Examples are, antibiotics on foods other than poultry, formaldehyde on any food, quaternary ammonium compounds on any food.

The main purpose of the pesticide amendment was to provide a means for establishing tolerances for pesticide residues resulting from the use of pesticides in the growing of crops and the production of food. These pesticide uses may be classified as preharvest or in the case of meat as preslaughter applications.

Under the procedure, however, tolerances may be set for postharvest or postslaughter application of pesticides to raw agricultural commodities. Tolerances have been established to permit the application of the antibiotics chlortetracycline and oxytetracycline to dressed poultry to combat bacterial spoilage during marketing. Tolerances have been established to permit the use of diphenyl and ammonia on citrus fruit to combat spoilage from the growth of mold organisms. Tolerances have also been established for sodium-o-phenylphenate on certain fruits to provide for postharvest application to retard spoilage. A tolerance has been established for basic copper carbonate on wrappers of pears and for sodium dimethyldithiocarbamate on cantaloup to combat spoilage during the marketing of these fruits.

When these pesticides are applied postharvest for preservative purposes, their addition to food must be declared. This in accordance with the provision under section 403 (k) of the Food, Drug, and Cosmetic Act which requires that preservatives, artificial flavor or artificial color added to food be declared. There has been considerable opposition on the part of some segments of the produce industry to declaration of preservative and bills have been introduced into Congress to remove this requirement from the law with respect to "produce of the soil." This requirement was not added as a part of the pesticide amendment, but has been part of the Food, Drug, and Cosmetic Act since it was passed in 1938. Certain preservatives have not required tolerances because they have been found nonpoisonous but still require label declaration because they are preservatives. They are sodium benzoate, sodium and calcium propionate, methyl and propyl parahydroxy benzoates, and sorbic acid.

No tolerance has been established for any pesticide in a processed food. However, to provide for pesticide residues on a raw agricultural commodity carrying through into processed food section 120.1 (f) states that the processed foods will not be considered unsafe if (1) the poisonous or deleterious pesticide residues have been removed to the extent possible in good manufacturing practice and (2) the concentration of the pesticide in the preserved or processed food when ready to eat is not greater than a tolerance permitted on the raw agricultural commodity. It should be noted, however, that this does not permit the addition of any pesticide to the food during or after processing. Any such addition would render the processed food adulterated under the act.

Mr. Carroll has described the potential for antibiotics in the preservation of fish. The Food and Drug Administration has given careful consideration to the use of antibiotics as preservatives and has reached the conclusion that such use generally has not yet been established as safe. (The exception, the use of antibiotics on poultry, is discussed later.) This conclusion is based upon three considerations; (1) consumption of food so treated may cause sensitization of the consumer to such antibiotics and result in severe reaction; (2) the consumption of treated food may result in emergence of strains of pathological organisms resistant to these drugs; (3) the possibility of toxic effect from long-continued consumption of small amounts of the antibiotic has not been fully investigated.

We have had applications from several manufacturers of antibiotics for tolerances for antibiotic residues in food but only in the case of uncooked poultry was it possible to establish tolerances. Tolerances of 7 parts per million were established for both chlortetracycline and oxytetracycline on dressed poultry. This was possible because poultry is always cooked before eating and the cooking

necessary to make it palatable destroys these antibiotics so that no significant residues remain on the food as consumed.

The status of antibiotics in food in the United States may be summarized as follows: (1) they may be used so that no residues remain in the food. This is acceptable. (2) They may be used so that residues remain in the uncooked food, provided the food is always cooked and the cooking always destroys all of the antibiotic and further that the residues in the uncooked product are within the official tolerance. (3) They are being considered for uses which will leave some of the antibiotic in the food as it is eaten. Their safety under those conditions has not yet been established. Until tolerances are established to permit such uses, they are not acceptable.

Because of the rigorous procedure by which pesticide tolerances are established, growers, food processors, packers, and the consuming public can be reassured in the realization that when a tolerance is issued by the Federal Government it means (1) that residues up to the tolerance level are safe; this has been established by adequate experimental studies on animals; (2) that the pesticide can be employed usefully in agriculture without leaving excessive residues; this has been established by the certificate of usefulness furnished the Food and Drug Administration by the Department of Agriculture, and (3) that when the pesticide is used according to proper direction it will leave residues that are within the permitted level. We will not issue a tolerance unless there is evidence that it will be met when the pesticide is used as proposed.

You will wish to know how the Food and Drug Administration goes about enforcing the Federal Food, Drug, and Cosmetic Act with regard to residues. Our procedures, broadly speaking, are as follows:

Before the growing season, we try to keep abreast of new developments with regard to pesticides and new recommendations in spray schedules issued by the States. During the growing season, inspectors in growing areas keep in touch with State authorities and growers to determine what sprays and dusts are being used and how. The inspectors may pick up a few samples from farms or from shipping points for examination. These examinations permit us to confirm earlier observations made during the season about the likelihood of high spray residues.

Then during the shipping season, some samples are collected at shipping points and at destination for further examination for spray residues. When we go into a growing area to make investigations, we go openly, we cooperate with the State and local agricultural authorities, we make every effort to be helpful in connection with our inspectional activities. Unfortunately, our laboratory facilities are extremely limited. We cannot offer to run samples for spray residues for all who would like to have such tests made on their crops; however, if the samples that we collect to confirm our inspectional observations show high residues before a crop has been placed in interstate commerce, we get in touch with the appropriate State authorities immediately so that steps may be taken to reduce the residues prior to shipment.

It has been a pleasure to meet with you for this discussion. If there is sufficient time, I will be glad to answer any questions that you may have on this subject.

STATEMENT OF GEORGE W. JENKINS, PRESIDENT, PUBLIX SUPER MARKETS, INC., LAKELAND, FLA.

Publix Super Markets, Inc., of which I am president, is the major supermarket chain in our area, with headquarters in Lakeland, Fla. In 1957, our sales were approximately $77 million, with 10 percent of this volume (or nearly $8 million) representing sales of fresh fruits and vegetables.

It is our understanding the United States Food and Drug Administration holds that fresh fruits and vegetables treated postharvest with pesticide chemicals must, under section 403 (k) of the Food, Drug, and Cosmetic Act, be labeled to that effect when offered for public sale on the theory that, when so used, these pesticides are considered "chemical preservatives."

We have given this matter careful study in an effort to be as objective and impartial as possible, yet place it in its proper relationship among modern supermarket merchandising and distribution problems. And, in each case, we come back to the inescapable fact that such a ruling will not only seriously curtail our volume of fresh produce sold, but will also present virtually insurmountable problems in purchasing, prepackaging and distribution.

Let us cite some specific examples to illustrate the impracticability of such a requirement under our operations—

Fresh pears, grapes, peaches, apricots, lettuce, and other produce are supplied by numerous different shippers throughout the country. Assuming that 3 different suppliers of the same item use 3 different pesticide chemicals on their fruit or vegetables, in order to conform to section 403 (k), we should have to set up 3 distinct and separate displays, each with its own particular placard showing what chemical was used on that lot. This would, in effect, require three times the space area, with each lot being kept rigorously separated from the other. It might happen that 1 lot sold faster than the other 2, yet that particular display would have to be left in its own bin until completely sold; there would be no possibility of mixing lots.

If, on the other hand, a consumer selected fruit from one lot, then put it back in a different lot, we are in technical violation of the food and drug regulations, and subject to prosecution in the Federal courts.

A very real danger exists that the placard placed inside the box by the shipper may be lost in transit. How are we to tell, without a chemical analysis, what chemical pesticide, if any, was used on the fruit? The supplier might be able to tell us, but we would have to hold up sale of a highly perishable product until we received or prepared another placard.

Fresh produce is usually put out by youngsters, who may bring out 2 or 3 boxes, each treated with a different chemical pesticide for sale that day. It is entirely possible that they might accidentally switch placards, and thereby make us subject to prosecution by Food and Drug. Yet, we cannot hire chemists to handle our produce.

In prepackaging, enforcement of this regulation becomes even more complex and dangerous for us, and could, possibly, doom this type of merchandising. When we receive produce from three different suppliers, these are put together in the grading room, where the produce or fruit is carefully selected as to size and quality, packed in trays that are then sealed with cellophane, and a price tag showing weight, value per pound, and the total price pasted on. No distinction on produce from different suppliers is made. Under 403 (k), not only would we have to keep lots from different suppliers separate, but different stickers showing the chemicals used on the individual lots of produce would also be necessary.

It is our experience that housewives rarely, if ever, trouble to inquire if chemical pesticides are used on fresh produce. On the other hand, we are convinced that, if her attention is drawn to the fact by the compulsory use of stickers, she might hesitate a long time before buying or, because of ignorance of chemical terms, pass it up and buy the canned product instead.

The average housewife, as a matter of habit, washes produce such as apples, pears, and lettuce in preparing it for the table. Possibility of harm from ingestion of a pesticide chemical is very remote.

We must, therefore, go on record that, should Food and Drug enforce present regulations of section 403 (k) and insist on the labeling of chemically treated fresh produce, we shall be compelled, in self-defense, to refuse to buy any item so treated. This, of course, will inevitably mean a considerably higher loss from spoilage because of shorter shelf life, with the resultant higher retail cost to the American consumer. We are wondering whether the Food and Drug Administration is prepared to defend this compulsory increase in cost of fresh produce to the public as fully justified.

To sum up, it is our considered opinion that the only concern of the housewife is whether such fresh produce is safe for human consumption. Safety, however, need not enter into consideration, as this is fully provided for by the Miller Act, which sets up tolerances for such chemicals on fresh produce. Therefore, we ask, why this unnecessary labeling? If it were canned goods, this requirement might be understandable, and the problem of identifying each particular batch would not even arise.

But we would certainly challenge any person, chemist or layman, to be able to identify at a glance what particular chemical pesticide has been used on fresh products without a careful analysis. If an unscrupulous shipper is using prohibited chemicals, he is going to be sure not to advertise the fact. On the other hand, a reputable firm is going to conform in every respect with tolerances set up by the Food and Drug, so why this elaborate additional labeling precaution that serves no useful purpose, and in fact works to the contrary?

We regret that we have to take such a position, as we are fully convinced that pesticide chemical tolerances established by Food and Drug are indispensable

to the fresh-produce trade, but we think you will appreciate that we cannot afford to violate the law, knowingly or unwittingly, even though interpretation of section 403 (k) strikes us as absurd and pointless.

H. R. 9521 would correct these difficulties, we believe. Accordingly, we earnestly urge its approval and prompt passage.

(Whereupon, at 4:40 p. m. the committee adjourned, to reconvene at 10 a. m., Thursday, April 24, 1958.)

CHEMICAL PRESERVATIVES

THURSDAY, APRIL 24, 1958

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON HEALTH AND SCIENCE OF THE
COMMITTEE ON INTERSTATE AND FOREIGN COMMERCE,
Washington, D. C.

The subcommittee met at 10 a. m. in room 1333, New House Office Building, the Honorable John Bell Williams (chairman of the subcommittee) presiding.

Mr. WILLIAMS. This morning, the Subcommittee on Health and Science continues its hearings on H. R. 9521, sponsored by our colleague, Mr. Haley, of Florida, to amend the Food and Drug Act relating to the definition of "chemical preservative."

Our first witness this morning will be our colleague, the Honorable Al Ullman, of the State of Oregon, who has, I understand, a brief statement he would like to make to the committee.

We are pleased to have you before the committee, Mr. Ullman.

Mr. ULLMAN. Thank you, Mr. Chairman. I appreciate the opportunity of appearing here.

STATEMENT OF HON. AL ULLMAN, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Mr. ULLMAN. Normally, even though my statement is brief, I would submit it for the record. However, in my opinion, this is important legislation. It is vital to the producers of fruit and vegetables, certainly in my part of the country, and so I am going to take just a few moments to present the full statement to the committee. I do appreciate the opportunity.

Mr. Chairman, H. R. 9521 is a sound approach to a problem which is currently plaguing fresh fruit and vegetable producers. If enacted, this legislation would extend to pesticide chemicals used on any postharvest raw agricultural commodity which is the produce of the soil the same exemption from labeling as is now extended to preharvest use of pesticide chemicals. I am convinced this is a sound bill and is necessary, in view of the failure of all attempts to obtain relief through administrative action.

A recent order issued by the Food and Drug Administration exempts preharvest pesticide chemicals used on agricultural commodities from the labeling requirements of section 403 (k) of the Federal Food, Drug, and Cosmetic Act on grounds of impracticability. Unfortunately, this exemption was not extended to the same chemicals used at postharvest time. I say unfortunately, for the very same arguments apply equally to both.

It is recognized that labeling requirements were originally included in the Federal Food, Drug, and Cosmetic Act to protect consumers against excessive use of chemicals that might be injurious to health. However, consumers are already being given adequate protection against improper use of pesticide chemicals by Public Law 518, adopted in the 83d Congress. This legislation before us now amends the Federal Food, Drug, and Cosmetic Act with respect to residues of pesticide chemicals in or on any raw agricultural commodity. It establishes procedures for fixing tolerances for such chemicals, and has already resulted in the setting of tolerances for many chemicals.

The legislation I am referring to is Public Law 518, which does protect the industry.

The provisions of H. R. 9521 would, therefore, not result in the indiscriminate use of pesticide chemicals.

Postharvest pesticide chemicals used to inhibit mold and decay during shipment are applied as a protective coating only, rather than throughout the product, as is customary with preservatives. As such, I believe they should be classed with preharvest protective pesticides and be governed by residue tolerances rather than as preservatives with their labeling requirements.

Representatives of the fruit and vegetable industry do not object to complying with tolerance requirements with respect to the use of pesticide chemicals. They are willing to comply with established residue requirements on export shipments, as well as those destined for domestic markets. You have representatives of the industry here who, I am sure, will confirm that.

But they do object, and rightfully so, to present labeling requirements, because such requirements place an undue and unreasonable hardship upon the industry.

Mr. Chairman, I would like to point out some of these hardships. First of all, I think it important to bear in mind that some packing-houses use chemicals to prevent decay or mold, while others do not. In addition, some packers treat fruits and vegetables at some seasons and not at others, depending upon the quality of the fruit and whether it is being packed for prompt shipment or for storage. If these packers are required to carry a notation that the produce has been treated with chemicals, it would be necessary to maintain duplicate or double sets of labels for treated and untreated produce.

It would be burdensome and difficult, if not impossible, to assure complete accuracy in labeling. Confusion and error would inevitably result where some of the produce in a packing plant was being treated and some remained untreated. It is almost certain that packers would, in some instances, place treated produce in a box not properly labeled or untreated produce in a labeled container.

Similar labeling difficulties would, almost certainly, occur at the retail level. Treated and untreated fruits and vegetables would often be intermingled. Cards on bins, in all likelihood, would not be changed every time different lots of fruits would be received, and the resultant state of confusion can easily be imagined.

Still another complication at the retail level is to be found in the current trend to package several different fruits together for retail sale. For example, one or more apples, pears, bananas, and oranges or other fruit may be included in a single container and wrapped with film. Some of this fruit would be treated and other untreated. It

would be almost impossible to label a package of this type in such a manner as to give the consumer full and accurate information with respect to the situation.

An even more serious problem would surely result from the natural hesitation of the consuming public to purchase produce which would be labeled with ominous-sounding, technical terms which the average layman could not be expected to understand. A bin of pears or apples bearing a sodium-o-phenylphenate label rapidly loses a good deal of its attractiveness in the eyes of the understandably confused consumer. Retail establishments can hardly be blamed for their declared reluctance to handle such labeled commodities.

All of us who buy food in the stores can readily recognize the tremendous burden that would be placed on these particular commodities. I know that many stores would absolutely refuse to handle merchandise that had to be so labeled. If this labeling were a matter of protection to the public, then, certainly, there would be an argument for it. But in my opinion, in the opinion of the industry, adequate protective standards are already provided.

The industry is willing to live up to the requirements and the tolerances to protect the health of the public. Why, therefore, should they be penalized in the market place, as this legislation obviously would do?

Nor should we fail to consider the effect of such labeling requirements on our export outlets for fresh produce. Exports of fruit have been of great importance to the food industry, and must be maintained. Yet foreign importers and consumers could not possibly fathom the significance of pesticide-chemical notation. Such labeling would only afford the protectionists in foreign countries yet an additional argument in an attempt to exclude our fresh fruit.

Mr. Chairman, thus we have a situation in which the present labeling requirements of section 403 (k) would inevitably lead to confusion and error at both the packing and retail levels, as well as adversely affecting our foreign export markets. Bearing in mind that no health or safety factor is involved, I am convinced that such requirements are unnecessary. Consequently, I urge the members of this subcommittee to take early favorable action on H. R. 9521 and remove this unfair and unworkable restriction on the fruit and vegetable producers of this country.

Thank you very much.

Mr. WILLIAMS. Mr. Ullman, you have made an excellent statement, and I think it is certainly indicative of the fact that you have a very thorough knowledge of this subject. You have made a splendid case for removing these requirements from the law.

In view of the fact that the safety or the health angle is not involved here, because that is covered by other sections of the law, and the question of using artificial coloring on fruit is also covered by another section of the law, basing your reply on your knowledge of the industry, can you think of any conceivable reason whatsoever why such a requirement should be retained?

Mr. ULLMAN. Mr. Chairman, I have tried, because I am just as interested as any other Member of Congress and any other citizen of this country in protecting the health of this country, but I cannot, after a thorough study of this problem, see any reason whatsoever, any need whatsoever for this legislation for that purpose.

Mr. WILLIAMS. You mean for the requirement in the present law?
Mr. ULLMAN. That is right.
Mr. WILLIAMS. Dr. Neal?
Mr. NEAL. I have no comments.
Mr. WILLIAMS. Mr. Dingell?
Mr. DINGELL. Thank you, Mr. Chairman. I would just like to compliment our colleague very briefly on his usual very splendid presentation this morning. I am very much impressed by what you have said and by what I read in your written statement. I just want to conclude by saying I have the greatest respect for you, a most able and respected Member of this body for your opinion. I am aware that you are a keen scholar and student in this matter. I am going to put a great deal of weight in what you have said this morning.
Mr. ULLMAN. Thank you. I know that the gentleman from Michigan is a great advocate of protection of the consumers of this country. But I am sure that, if he analyzed this legislation thoroughly, he would find that this regulation—and I want to correct this in my previous statement, if there was any misunderstanding— that this legislation removes this unnecessary restriction that has been placed on us by a regulation of the Food and Drug Administration.
This legislation removes that restriction, and I am sure that you will find that this legislation is fair, and that this restriction which has been placed on the industry will in no way endanger anyone's health in this country, because there are already more than adequate safeguards, in my opinion, at other levels, and if they are not adequate at other levels, this problem should be approached at those other levels rather than in this way, which is completely unworkable and completely burdensome and completely unfair to great segments of our producers in this country.
Mr. WILLIAMS. Mr. Loser?
Mr. LOSER. Is there not some discretion vested in the Food and Drug Administration with reference to this labeling of agricultural products?
Mr. ULLMAN. When they excluded the preharvest vegetables, they could have by administrative regulation excluded the postharvest vegetables and fruits also. But they chose not to do so, and that is the purpose of this legislation, to provide the same removal of this labeling regulation to the postharvest pesticide chemicals as to the preharvest pesticide chemicals.
Mr. LOSER. The other day I believe someone testified that an effort was made before the Food and Drug Administration with reference to postharvest use of these pesticides, and they declined to entertain the petition, acted unfavorably upon it.
I am wondering what the reason was for the basis of the opinion of the Food and Drug Administration's declining to entertain that petition with reference to the postharvest matter.
Mr. ULLMAN. First, it is not a matter of the use of the chemicals. It is a matter of the labeling, the required labeling in the vegetable bins in a far-off market 3,000 miles away.
Mr. LOSER. What was the reason for declining to entertain the petition with reference to labeling?

Mr. ULLMAN. I have never been able to gather, from their statements any adequate reason, but I am sure you will have members from the Agriculture Department here who will attempt to explain why they have done this. But in my opinion, their arguments do not hold water.

Mr. LOSER. It seems to me that that would be a rather important thing for this committee to know, the reasons for the Food and Drug Administration's declining to act favorably or to consider the petition with reference to postharvest.

Mr. NEAL. If the gentleman will yield, most likely members of the Food and Drug Administration will testify, and in that case we can insist upon their giving us reasons.

Mr. ULLMAN. I might comment that I shall be very anxious, as you will be, to find out what reasons they have, because the reasons that have been given to date are totally inadequate, in my opinion.

Mr. WILLIAMS. Would it be reasonable to say, Mr. Ullman, that the present regulations tend to confuse the consumer more than to inform him?

Mr. ULLMAN. The chairman is absolutely right. As I said, these chemicals with the long names are allowed to be used because they do not endanger the health of the country. We give a reasonable tolerance to them. If they did endanger health, we would not allow them to be used.

These labeling requirements can add nothing but total confusion to the consumers of the country, and are totally unworkable, because grocery stores that buy vegetables from all over the country cannot conceivably comply with them. They just cannot conceivably comply with this regulation. It is totally unworkable and a tremendous burden to the producers of this country.

Mr. WILLIAMS. There is one other point that has not been brought up at these hearings.

I personally do not know whether this would be significant or not. But it would appear to me that the removal of this restriction would also remove or reduce at least to that extent some cost of administration in the agency itself.

Certainly, to have this regulation requires enforcement, and in order to enforce it, a certain amount of funds are necessary; are they not?

Mr. ULLMAN. The chairman has brought up a very important point, and I had intended to include it in my testimony, but it was already too long. It would be practically impossible to administer and would be extremely costly if the Department attempted to regulate every retail outlet in his country as to the use of these labels. It would just be a very, very costly matter, as the chairman has so ably pointed out.

Mr. WILLIAMS. I am inclined to think they could use their funds for a much better purpose.

Mr. NEAL. By the same token, it would necessarily increase the cost of the product to the consumer; would it not?

Mr. ULLMAN. The consumer obviously would have to pay more for this sort of a regulation.

Mr. LOSER. We do not want that.

Mr. ULLMAN. Heaven only knows the consumer is already being nicked heavily enough.

Mr. DINGELL. Mr. Chairman, I was wondering if our colleague here would tell use the specific vegetables and fruits grown by the people in his area.

Mr. ULLMAN. We are interested in fresh fruits, especially. We raise a great number of pears, apples, and cherries. We raise onions in quantity, and potatoes. In general, we are increasing our truck produce.

But we have the problem out on the west coast, where we raise in my opinion a very superior fruit in that we have to ship them clear across the country. This is the reason why we use these nonharmful pesticide chemicals, in order to preserve the fruit.

Mr. DINGELL. May I ask you this question.

I noticed in your statement that there are two principal objections raised by you to the present laws. One is the applicability of this labeling to exports from the country, and the other is the labeling that is compelled to be placed on the sign or placard that is placed in the store over the produce which has been treated by postharvest pesticides.

I was wondering whether, if this bill were amended so that the container shipped in interstate commerce were labeled but the posting of the placard in the store were not required, that would meet with your approval.

Mr. ULLMAN. In my opinion, if you properly regulate the use of these chemicals in the packing plant, there is no further need to label them. As I pointed out, it would create additional cost in the packing shed, certainly, and a great deal of cumbersome machinery in order to separate those that are using the pesticide chemicals and those that are not using them. I think that argument alone is sufficient.

If it could be shown that it would contribute in any way to the health of the country, then I could certainly be convinced. But I cannot see any possible beneficial use of that type of regulation.

Mr. DINGELL. How about eliminating the exports? In other words, so that there would not have to be any labeling on commodities slated for export.

Mr. ULLMAN. As I indicated, that should be eliminated. Most certainly, in my opinion. But as I stated before, I see no reason to go beyond the initial regulation as to tolerances. When the Food and Drug Administration says this chemical, when used in the right tolerances, is not harmful—and they certainly would not allow it to be used if it were harmful—if that regulation is enforced, as it should certainly be, then in my opinion there is no need to go beyond that point to protect the health of the people of this country.

Mr. DINGELL. Thank you very much, Mr. Ullman.

Mr. ULLMAN. I certainly thank the committee for their kind consideration.

Mr. WILLIAMS. Thank you very much, Mr. Ullman.

When we concluded on Monday afternoon, I believe we stated that we would call as our first witnesses two gentlemen who were in the room

at the time who did not get to testify. They were Mr. Rains, I believe, and Mr. Baier.

Mr. Rains, we welcome you to the committee. We would be glad to have your statement, sir.

Mr. RAINS. Thank you, sir.

STATEMENT OF ALAN T. RAINS, EXECUTIVE VICE PRESIDENT, UNITED FRESH FRUIT & VEGETABLE ASSOCIATION, ON BEHALF OF THE FRESH FRUIT AND VEGETABLE INDUSTRY

Mr. RAINS. My name is Alan T. Rains. I am the executive vice president of the United Fresh Fruit & Vegetable Association. I am appearing for the same groups on whose behalf Mr. J. Hardin Peterson, a previous witness, has testified. Mr. Peterson has explained the position of the fresh fruit and vegetable industry with respect to the policy of the Food and Drug Administration that fungicides applied to fresh fruits and vegetables are chemical preservatives and must be declared on the label of those commodities. I should like to discuss briefly certain recent FDA official actions which relate to the subject matter of H. R. 9521.

Before doing so, however, I should like to explain a few technical terms referred to during Monday's testimony which may not have been generally understood, and which are involved in my statement.

Mr. WILLIAMS. Mr. Rains, may I interrupt you at this point.

I notice that your statement is some 10 pages long. That is not what we generally consider to be an exceptionally long statement. However, for the benefit and information of those who are present, we have some 8 or 10 witnesses whom we hope we can hear this morning. If you feel that in the interests of time you could explain your statement by hitting the high points of it, we can permit the entire statement to go into the record as if it were given in full here.

Mr. RAINS. Surely.

Mr. WILLIAMS. If you feel that that will not take anything away from your presentation, we would appreciate the witnesses doing that the best they can, to help us in the interest of saving time so that we can hear as many witnesses as possible in this morning's session.

Mr. RAINS. I will do my very best, Mr. Chairman. I would like to read parts.

Mr. WILLIAMS. I will leave it to your judgment.

Mr. RAINS. I think there are some clarifying statements in here that the members of the committee might want to talk about.

The term "pesticide chemical" is a statutory term. It is defined in section 201 (q) of the Food, Drug, and Cosmetic Act. It includes such materials as insecticides, fungicides, weed killers, and other pest-control chemicals. Collectively, these materials are commonly referred to as pesticides.

Insecticides are a class of pesticides used to control insects or to protect against insect infestation. Fungicides are a class of pesticides used to control molds, mildews, and other similar organisms which cause rot and decay. In other words, for the purpose of these discussions, insecticides are for the control of small animal organisms, and fungicides are for the control of minute plant organisms, both of which attack fresh fruits and vegetables.

Both insecticides and fungicides may be applied before harvest, to the growing crop, and both may be applied after harvest. These are referred to as preharvest and postharvest applications, according to when the pesticides are used. Some insecticides and fungicides are applied both preharvest and postharvest.

The term "chemical preservative" is also a statutory term, but it is not defined in the act. It is defined by a regulation issued by the Food and Drug Administration as meaning, with certain specified exceptions, "any chemical which, when added to food, tends to prevent or retard deterioration thereof."

Our problem stems from FDA's ruling that some pesticides; namely, fungicides, are chemical preservatives. There is no question of public health involved. This matter of safety is taken care of under the Miller pesticide chemicals amendment to the Food, Drug, and Cosmetic Act, under which FDA controls the use of pesticides on raw agricultural commodities in basically the same manner as the use of chemicals in other foods will be controlled under the food additive legislation now pending before this committee. The Pesticide chemicals amendment was enacted in 1954 and is in full and effective operation.

FDA has now adopted a regulation, which was published in the Federal Register for April 4, 1958, formalizing the official position of the agency on this matter. It specifically excludes insecticides and herbicides on raw agricultural commodities from the scope of the term "chemical preservative." The regulation also exempts fruits and vegetables to which fungicides have been applied before harvest from the labeling requirement, but makes no exemption for commodities to which fungicides are so extensively applied after harvest. Thus, although we welcome this regulation, it does not solve our problem. Fungicides are still regarded as chemical preservatives, and fresh fruits and vegetables bearing them must, under the regulation, be labeled to show their presence.

We are not able to see a reasonable basis for making a distinction between insecticides and fungicides in applying the chemical preservative labeling requirement. Both are used to protect the commodity from parasitical attack so that it will remain in marketable condition. Neither are ingredients of the commodity in the commonly accepted sense, as in the case of a preservative in processed foods. We were told by FDA that this distinction was based upon the fact that the action of insecticides is against insects, while that of fungicides is against other organisms, principally those which cause decay or rotting, and that this difference in the kind of deterioration which is prevented or retarded was the reason for the difference in the FDA treatment of insecticides and fungicides.

This rationale is not convincing. There appears to be nothing in the statute or its legislative history to support it, and until April 4, 1958, it was not even reflected in the FDA regulation to which I have referred.

On April 4, 1958, FDA also published a notice that it was considering a proposal to exempt citrus bearing postharvest residues of fungicides from the requirement that the names of the fungicidal residues be declared upon bulk produce at the retail level. In our opinion this proposal, as set forth in the published notice, is based upon an

unwarranted construction of the statute. Certainly, it would not affect substantial relief, even for citrus, to which it is limited.

The proposal would leave in effect the requirement that at all times during the marketing process, fruits and vegetables other than citrus bear labeling stating that a chemical preservative is present, and the name of the chemical or chemicals used. The same requirement would continue to apply to all citrus in transit and that being held for retail sale in package form. Citrus sold at retail in bulk would be exempt, but only to the extent of eliminating from the labeling the name of the chemical. The statement that a chemical preservative is present (without naming the chemical) would be retained.

Obviously, therefore, no progress would be made from the standpoint of fruits and vegetables generally by the adoption of the proposal in question, since it is limited to citrus. In the case of citrus itself, it would no longer be necessary for the retailer to differentiate between several possible fungicidal treatments for the purpose of labeling fruit held for sale in bulk. The proposal would not, however, alleviate the difficulty of distinguishing between treated and untreated citrus, even that not sold in package form. The description of retail merchandising practices in Mr. Peterson's statement seems to make it perfectly obvious that it is impracticable to make such a differentiation. Moreover, when the retailer packages citrus from bulk stock or stock which has been removed from the labeled shipping container (a very common retailing practice), he would still face the impossible task of trying to determine the kind of residues present on the various units of fruit, and label them with the name or names of the chemicals used.

The basis cited by FDA as authority for the partial exemption of citrus held for retail sale is section 403 (i) (2) of the Food, Drug, and Cosmetic Act, which deals with food which, in the words of that provision, is "fabricated from two or more ingredients." Such food is misbranded under section 403 (i) (2) unless it bears the common name of each ingredient, or has been exempted from this requirement by FDA, as the proposal would do in part.

The fresh fruit and vegetable industry is fundamentally and unalterably opposed to the concept which underlies the FDA proposal, that fresh fruits and vegetables bearing fungicidal residues are "fabricated" foods and that such residues are "ingredients" of these commodities. If the presence of a postharvest fungicidal residue on a fruit or vegetable requires its classification as a "fabricated" food, it seems evident that commodities bearing residues of insecticides, or of fungicides applied before harvest, must be so classified.

FDA has not heretofore suggested that the use of insecticides would have such a consequence, or that its recently adopted regulation exempting from section 403 (k) residues of fungicides applied before harvest did not dispense with all labeling with respect to such residues. It would be as logical to maintain that a particle of soil clinging to a cantaloup is an ingredient of the commodity and would require its classification as "fabricated" food as to argue that a fruit or vegetable with a pesticidal residue is "fabricated," for in some instances the residue itself (as distinguished from the original chemical treatment) serves no essential function any more than does the particle of soil adhering to the cantaloup.

We can discern no reasonable basis for the view that the presence of the residue makes an apple or a cucumber a "fabricated" food. The primary dictionary definition of "fabricate" is "to form into a whole by uniting parts; to frame; construct; build, as, to fabricate a bridge or ship; to fabricate a book." (Webster's New International Dictionary, second edition.) Can it logically be maintained that an orange or an apple is "made into a whole by uniting parts" when it is treated with a pesticide which leaves a residue?

Mr. Chairman, can you tell me which of these commodities is a fabricated food under the concept being promulgated by the Food and Drug Administration? I can assure you that one is not; others are [producing pieces of fruit]. Which is the fabricated food?

The rationale of the FDA proposal would extend, not only to all insecticidal and fungicidal residues on raw agricultural commodities shipped in interstate commerce, but to residues of chemicals (including pesticidal residues), and perhaps other substances, in processed foods. Many processed foods are made from chemically treated raw agricultural commodities. If section 403 (i) (2) were construed as being applicable to such residues, many canned and frozen foods would apparently have to be labeled to show the presence of detectable pesticidal residues, upon the theory that such residues were "ingredients" of the foods. Likewise, foods into which chemicals migrate from food packaging materials would presumably be subject to the labeling requirement even though no question of safety were involved. Chlorine is used to purify water, and fluorine is added to water to retard the incidence of tooth decay. Under the theory of the proposed regulation residues of these chemicals would be "ingredients" which must be declared on the labels of foods in which they occur as a result of the use of treated water in their processing.

Moreover, the FDA approach entirely disregards the practical aspects of marketing fresh fruits and vegetables. As previously shown, during the packinghouse procedures, fruits or vegetables from several grower sources may be handled in a single, continuous operation and may be packaged for shipment, not according to source but according to sizes and grades of the commodity. Some portions of the commodity may have received treatment with a pesticide, either before harvest, or later in the packinghouse, or both, while other portions may be untreated. Yet the treated and untreated portions may be commingled in the shipping containers at the end of the packing operation.

We can see no reason or logic in the FDA view that those units of the commodity bearing a residue must be regarded as "fabricated" foods which must be labeled to show the name of the chemical residue, while the units with no residue are not "fabricated" and do not require such labeling. To treat any fresh fruit or vegetable as "fabricated" is contrary to the most elementary logic and the understanding both of industry and consumers.

We have found no evidence in the legislative history of the statute to suggest that Congress intended to use the term "fabricated" in any but its commonly understood or dictionary sense. On the other hand, there are a number of affirmative indications in both the statute and the legislative record of congressional intention to exclude fresh fruits and vegetables from the category of "fabricated" foods.

Section 201 (r) of the act (added by the pesticide chemicals amendment, the Miller bill) defines the term "raw agricultural commodity"

to include "any food in its raw or natural state, including all fruits that are washed, colored, or otherwise treated in their unpeeled natural form prior to marketing." Obviously, citrus and other fresh fruits and vegetables which have received pesticidal treatment are commodities in their "raw or natural state," within the meaning of this definition. It is equally apparent that it would be illogical to consider a food in its "raw or natural state" as "fabricated."

Indeed, FDA's own pesticide regulations adopted under the Miller bill define the term "raw agricultural commodity" to exclude "foods that have been processed, fabricated, or manufactured by cooking, freezing, dehydrating, or milling. Clearly, therefore, a food cannot, by the very term of these regulations, be both a "fabricated" food and a raw agricultural commodity. This same distinction between fabricated foods and raw agricultural commodities treated with pesticides is found in the report of the Interstate and Foreign Commerce Committee on the Miller pesticide chemicals amendment (H. Rept. 1485, 83d Cong., 2d sess., p. 6).

(This distinction is also made in the report on page 5. The same distinction is found in S. Rept. 1635, 83d Cong., 2d sess., pp. 4 and 6.)

The report states:

> This section contains definitions of the terms "pesticide chemical" and "raw agricultural commodity" * * *
>
> It is intended by these definitions to draw a sharp line of distinction between the subjects covered by this bill and the subjects which are unaffected by it. This bill covers the regulation of the residues from pesticide chemicals which may remain in or on food in its raw or natural state as usually purchased by the consumer or the food processor. * * * This bill does not attempt to regulate the residues from pesticide chemicals which may remain in or on processed, fabricated or manufactured food other than by limiting the permissible residues on raw agricultural commodities.

Thus, it is evident that the committee considered and Congress enacted the pesticide chemicals amendment with the understanding that fruits and vegetables treated with pesticides were not fabricated foods. Under any reasonable construction of the statute they cannot be both fabricated foods and raw agricultural commodities. They must fall in the latter category or the pesticide chemicals amendment would be a nullity.

If, despite these factors, FDA adheres to the concept underlying its citrus exemption proposal we shall have to request another amendment to the Food, Drug, and Cosmetic Act providing that raw agricultural commodities which are produce of the soil shall not be classified as "fabricated from two or more ingredients." However, we hope that FDA can be persuaded that the proposed regulation, with the implications which we have noted, should not be adopted.

Of course, if this committee, which handles all food and drug legislation, shares our view that fresh fruits and vegetables bearing pesticidal residues are not fabricated, an expression of its opinion to this effect in the committee report would clarify this point.

Our immediate problem is the application of section 403 (k) in such a manner as to require chemical preservative labeling on fresh fruits and vegetables bearing residues of pesticide chemicals. H. R. 9521 would give relief from this provision by excluding from the scope of the term "chemical preservative" "any pesticide chemicals when used in or on any raw agricultural commodity which is the produce of the soil."

A question was raised at the hearing last Monday with respect to the phrase "in or on" any raw agricultural commodity, as used in the proposed bill. It was suggested that the words "in or" should be deleted. I should like to point out that inevitably, some pesticides will penetrate the skin or outer portion of the commodity, and that in any event the elimination of the words "in or" would not affect the legality of using such pesticides. Clearance for such use is and must be obtained from FDA under section 408 of the statute, the pesticide chemicals amendment, and is based squarely upon considerations of safety. It is only under section 408 that the question of penetration would become relevant—in connection with the determination of safety of use. Thus, such a change in the language of the bill could not affect the right under the statute to use pesticides. It would simply have the effect of creating a doubt as to whether, if the pesticide might be said to be in rather than on the commodity, it was excluded from the meaning of the term "chemical preservative."

H. R. 9521 is concerned solely with labeling. Whether a pesticide whose use is found to be safe under section 408 may be said to be used in or on a fresh fruit or vegetable should not, we respectfully submit, be determinative of whether its presence should be declared upon the label.

Finally, it seems appropriate to note that section 408, under which the safety of use of pesticides is determined, specifically provides for tolerances "with respect to the use in or on raw agricultural commodities," of such substances, and uses the words "bears or contains" interchangeably with the words "in or on." Likewise, section 403 (k), dealing with chemical preservatives, also employs the words "bears or contains." It would be difficult to predict just what the effect would be of departing from this pattern of usage in H. R. 9521.

I therefore urge the enactment of H. R. 9521 on behalf of the fresh fruit and vegetable industry, and express my sincere appreciation, Mr. Chairman, to you and the members of this committee for your patience in listening to me this morning.

Mr. WILLIAMS. Thank you very much, Mr. Rains.

With respect to the question of whether we should use the words "in or on," you state:

> **Clearance for such use is and must be obtained from FDA under section 408 of the statute * * * and is based squarely upon considerations of safety.**

Does the statute require that clearance must be obtained before anything is injected into the fruit?

Mr. RAINS. Yes. It goes even farther than that. None of these chemicals may be used until all doubt has been removed. Clearance must be had before they may be used and tolerances are set up. FDA does an extremely beautiful job, if I may say so, in protecting the public health, because they have tolerances that are tough to meet, and they have a big safety factor in addition to the tolerances.

Mr. WILLIAMS. You do not consider that to be a problem at all?

Mr. RAINS. Not at all. We have implicit faith in the FDA's protection of the public health.

Mr. WILLIAMS. Dr. Neal?

Mr. NEAL. I wish only to say that it seems to me you have made quite a successful attempt in endeavoring to show the reasons for the interpretation of this law. You have shown both sides of it pretty clearly, and the committee appreciates your statement very much.

Mr. RAINS. Thank you very much, Doctor.

Mr. WILLIAMS. Mr. Dingell?

Mr. DINGELL. I have no questions, Mr. Chairman.

Mr. WILLIAMS. Mr. Loser?

Mr. LOSER. With your statement that the safety factor is not involved, I am inevitably led to ask why in the world there would be a requirement of labeling if the question of the public health is not involved?

Mr. RAINS. Sir, my colleagues and I have tried to fathom that reasoning for about 2½ years, and we have been unsuccessful.

There is a provision in the FDA regulations that permits the Administrator, upon a showing of impracticability, to relieve retailers from labeling the merchandise at retail. They say that it is not impracticable to demand that retailers label fruits and vegetables bearing post-harvest-applied pesticides, even though they may come from 8 or 10 shipping points, even though they may be looking at a hundred feet of display, with clerks that are difficult to train and more difficult to keep, and it is particularly confusing and I think a little disruptive to these retailers when they realize that if they are in violation of this regulation, they face criminal prosecution, fine, and imprisonment.

I think that is rather a stiff penalty, Mr. Chairman and members of this committee, when admittedly—and the Food and Drug admitted it to me in letters and to other members of this industry—they are not concerned one iota with the public health.

I cannot answer your question; I am sorry. We have tried to get an answer, but we cannot.

Mr. WILLIAMS. Mr. Rains, would it be a fair statement or a reasonable statement and a truthful statement to say that insofar as the effect of this regulation is concerned, its only real result has been to provide for unnecessary Government harassment on business?

Mr. RAINS. I would have been reluctant, Mr. Chairman, to introduce the term "harassment," but that is exactly the thing we have been subjected to.

Mr. WILLIAMS. And you feel it has been without any reason whatsoever.

Mr. RAINS. Absolutely. If they say that the public wants to be informed—what public? We have only made that conclusion recently. If they want, if the public wants to know that a fruit or vegetable bears a pesticide chemical residue, are they wise enough, are they well enough informed to determine and make the request of the Food and Drug Administration that they want to know only about those residues that are applied postharvest and they do not care a hang about the residues that are applied preharvest? Does that make sense?

I think it is outrageous.

Mr. DINGELL. Mr. Chairman, may I be recognized?

Mr. WILLIAMS. Mr. Dingell.

Mr. DINGELL. I was very much impressed with your statement until you took off on the Food and Drug just a minute back. I happen to have a district which consumes fruit, and I happen to watch the sentiments of my people in my district. They happen to like to know foods which come in with additives or preservatives, whether they are added before harvest or whether they are added as preservatives. They like to know whether there are artificial colors used.

I think that up until the point that you started off on that particular tack, you made a fairly good statement.

I would like to tell you a few more things about this bill.

I happen to think the Food and Drug is doing a very fine job. I happen to think that they are also enforcing the law the way they see it, and I do not happen to think that the Food and Drug is at this time or has at any other time engaged in harassment.

I think that you want to give serious thought to correcting your statement on that particular point, sir. I would like to have you define what "harrassment" means.

Mr. WILLIAMS. Let me say I was the one who used the term "harassment."

Mr. DINGELL. I just do not want there to be any inaccuracy in the witness' testimony, Mr. Chairman. I am sure he does not want to leave that impression with the committee.

Mr. WILLIAMS. I will be glad to substitute the term "control," for "harassment." I do not see much difference, to be honest with you.

Mr. RAINS. I will accept that, and I appreciate your reading that into the record, Mr. Dingell, because I think I indicated when I replied to the chairman's question that we have been reluctant and have abstained from any public attack on the Food and Drug Administration, and we do not intend to make such an attack.

As I said in this statement, we have implicit faith in the magnificent job in which they control the food additives and the chemicals that are used in the production and distribution of our foods. We have implicit faith. We must work with them.

We have come to a point, sir, where we disagree as to what constitutes a chemical preservative. It is a very small point. I have tried to clear it up in the first 2 or 3 pages of my statement, that we cannot see where the difference lies between a pesticide chemical that protects against insects and another that protects against plant organisms.

If I have offended you, I am sorry.

Mr. DINGELL. You did not offend me personally.

Mr. RAINS. I should like the record to show that I extend my apologies, sir.

Mr. DINGELL. You do not have to apologize to me, sir. It is not a question of personal offense. It is a question of strong feeling as to what the Food and Drug Administration is doing and has done.

Mr. RAINS. We have the greatest respect for the Food and Drug Administration. I want to assure you that we work very closely with them, and we are going to continue to work closely with them.

My gracious, as the gentleman from Florida testified on Monday, the public spends a tremendous amount of money in line of experimentation, both Federal and State, trying to figure out new chemicals that will bring a better product at a cheaper price to the consuming public. His question, I think, was quite proper. He said, "I wonder whether, under these circumstances, we should continue to spend that kind of money."

Mr. DINGELL. Thank you, sir.

I would also like to tell my good friend the chairman, for whom I have the greatest personal affection and the highest regard, that I certainly meant nothing derogatory to him.

Mr. WILLIAMS. I do not think the Food and Drug people would be insulted by the use of the term "harassment." I suspect they have been accused of worse things than that.

Mr. LOSER. May I say, Mr. Chairman, that I feel that Mr. Rains' statement has been rather comprehensive, and I have been enlightened very considerably in his prepared statement here. I thank him very much for it.

Mr. RAINS. Thank you very much, sir.

Mr. WILLIAMS. Thank you very much, Mr. Rains.

Mr. Willard Baier.

STATEMENT OF WILLARD E. BAIER, MANAGER OF RESEARCH, SUNKIST GROWERS

Mr. BAIER. Mr. Chairman and members of the committee: I am Willard E. Baier, manager of research for Sunkist Growers.

I want first to say what I intend to do here. In the interests of saving time, I intend to read a very much condensed statement, and then with your permission to file my previously prepared statement.

Further, I would like to say that this condensed statement comprises a statement of definitions with comments on them. However, very little of it will be in repetition of what Mr. Rains has just given you by way of definitions.

Mr. WILLIAMS. In your other statement, do you identify yourself completely in detail?

Mr. BAIER. I am afraid not.

Mr. WILLIAMS. Then, for the record, will you please do so now, stating whom you are representing.

Mr. BAIER. I am representing Sunkist Growers, for whom I am the manager of research; and my name you have.

Mr. WILLIAMS. What is Sunkist? Is it a cooperative?

Mr. BAIER. Sunkist is a cooperative of citrus growers, a cooperative marketing organization. They are the seller and I am the Baier, to help you with my name.

Mr. DINGELL. May I ask where your principal supply comes from, sir, where you principally do business?

Mr. BAIER. The supply of citrus fruit comes from many areas of the State of California and a bordering area of Arizona. The business is done all over the country, and in export; not only fresh fruit, but citrus products of many kinds.

Now I will start with the definitions:

Although differently worded definitions might be expected from each individual submitting them, the only really controversial subject matter pertains to the meaning of "chemical preservative," which H. R. 9521 is designed to correct. I will briefly discuss safety, fabricated food, raw agricultural commodity, pesticide chemical, and chemical preservative.

Safety, being desired by all without exception, is most important and will be considered first.

The Miler amendment, in providing for the establishment of tolerances when needed for pesticide chemical residues in or on raw agricultural commodities, specifies the safety requirements. In effect it says that if trained and experienced experts do not generally agree

that a pesticide chemical is safe it shall be deemed unsafe. It retains the unsafe and unused status until it can pass the most exacting toxicological and other tests ever made part of food laws and regulations anywhere in the world to my knowledge. The residue tolerances, for which a material may then qualify, recognize safety under prescribed conditions of use on the raw agricultural commodity but, further, there will have been considered all the known end uses of the food in question.

I am quite familiar with biphenyl use as an in-carton fungistat for citrus fruit in transit. Five laboratories did toxicological studies; many more did chemical and analytical work. The animal species used in the toxicology included rats, mice, rabbits, dogs, monkeys, and the human. The end uses which were evaluated ranged from juicing the fruit in all types of extractors found on the market, to the home preparation of marmalade. The FDA required all this information, and rightly so. This is typical of the careful scrutiny given all new pesticide chemicals under the Miller amendment.

So much for safety.

Fabricated foods are not clearly defined except that 403 (i) (2) refers to a food "fabricated from two or more ingredients."

"Raw agricultural commodity" is defined by law (201 (r)) as—

> any food in its raw or natural state, including all fruits that are washed, colored, or otherwise treated in their unpeeled natural form prior to marketing.

Later (in section 408 (a)) it is stated that—

> while a tolerance or exemption from tolerance is in effect for a pesticide chemical with respect to any raw agricultural commodity, such raw agricultural commodity shall not, by reason of bearing or containing any added amount of such pesticide chemical, be considered to be adulterated within the meaning of clause (1) of Section 402 (a).

This makes clear, I believe, that we are talking about one class of raw agricultural commodities, not fabricated foods. But if there is any doubt about this, such doubt should be resolved.

"Pesticide chemical" is defined in the Federal Insecticide, Fungicide, and Rodenticide Act, and again in the Food, Drug, and Cosmetic Act. Most significant is the statement of its purposes: A pesticide is "used in the production, storage, or transportation of raw agricultural commodities." Here, you will see, is where the materials we call fungicides come to be classed as pesticide chemicals. They help in transportation.

Chemical preservative is, in a regulation under 403 (k) but not in the law itself, said to be—

> any chemical that, when added to food, tends to prevent or retard deterioration thereof, but does not include common salt, sugars, vinegars, spices or oils extracted from spices, substances added to food by direct exposure thereof to woodsmoke, or chemicals applied for their insecticidal or herbicidal properties.

Except for its impracticability clauses, the law requires labeling to state the fact that the food bears or contains chemical preservative. But fresh fruits and vegetables which are raw agricultural commodities, the produce of the soil, are living entities. They are far removed from dead tissues in a state of preservation. They keep themselves fresh by respiration, taking in oxygen and giving out carbon dioxide the same as you and I maintain our life process.

Chemical preservation is the antithesis of life. Only when the physiological processes are somehow terminated such as by heat, dehydration, disrupting the cells, or other means, can chemical preservation in the true sense take over. The best that can be done for a living organism to aid its resistance against infection is to maintain a favorable environment for its continued life and an unfavorable one for fungi attacking the surface.

The foregoing remarks, and my previously prepared statement which I propose to file but not read at this time, support the following conclusions on food labeling:

1. In addition to the food product name, legally required labeling of food ingredients is understood to apply to a fabricated food comprising two or more ingredients.

2. A raw agricultural commodity, on the other hand, is defined in the Miller amendment which provides for safe pesticide residues, which are incidental additives, and further provides that a raw agricultural commodity complying with the established tolerances (or exemption therefrom) is still a raw agricultural commodity.

3. A label statement provides information. If a label statement is required by law or regulation this implies that the information it is to supply is essential to the consumers' interest.

In the case of fresh produce even the name of the commodity is obvious to the purchaser without labels. The only additional information which could possibly be considered essentially would be that pertaining to changes which have been effected in the produce as to appearance and properties. Pesticide chemicals cause no such deviation from what is expected by the consumers of these raw agricultural commodities. Therefore, the law should specifically exempt from declaration, with respect to fresh produce of the soil, all those chemicals the tolerances for which are processed under the Miller amendment. H. R. 9521 would accomplish this purpose, and we respectfully request its enactment.

That is all.

Mr. WILLIAMS. Thank you very much.

Mr. BAIER. I do wish now to submit for the file the somewhat longer statement which supports these conclusions.

Mr. WILLIAMS. The committee will be glad to accept your full statement for the record.

(The statement follows:)

STATEMENT FOR CONGRESSIONAL COMMITTEE HEARING ON THE DECLARATION OF FOOD CHEMICALS

INTRODUCTION

We are broadly concerned in this statement with the use of agricultural chemicals, the residues of which carry through to the raw agricultural commodities as sold to consumers. These chemicals are applied to the tree, or to the fruit either before or after harvest for the purpose of assuring the quantity production and delivery of fruits of high quality to the consumer. The resulting residues of these so-called incidental additives are well regulated under the Miller amendment (sec. 408) of the Federal Food, Drug, and Cosmetic Act. These regulations provide many exacting requirements. Pretesting and experience with the use of such agricultural chemicals must have demonstrated economic desirability and consumer safety. Within these bounds, methods of application and allowable residue tolerances are prescribed by regulations under the present law.

NEED OF CHEMICALS

The use of agricultural chemicals of this type starts but does not end at the farm, as will be seen. Preparation for market is also to be considered.

The satisfactory production and movement of raw agricultural products from the farm to the consumer has always necessitated careful selection of methods for maintaining product quality or condition.

When it was expected to reach only the closer markets with a given commodity, and when labor was closer at hand, it sufficed to carefully convey the produce to the point of sale without delay.

Protective hand packing and selection of storage and transportation conditions came next. To these early pioneers it must have been most natural to appreciate that the materials they were handling were living, vital products. They learned that they could surround their produce with certain packaging materials which would allow the particular commodity to rest but not become smothered. Certain kinds of sawdust for packing table grapes, and lightly oiled tissue wraps for citrus fruits are examples. They learned what temperature ranges were proper, neither so cold as to cause the living commodity to suffer a chill from which it never recovers, nor so high as to quickly expend its life and invite invasion of spoilage organisms.

Speaking of these temperatures found by trial and error methods over a long period of time, the most careful research work today oftentimes can only confirm but not improve the earlier figures. It has been a challenge for research, however, to keep up with the demands of the one dictator we tolerate in our country—an ever improving standard of living. Only a few of these changes as they apply to citrus fruit need to be mentioned but they will serve to illustrate the point.

Modern distribution methods and self-service supermarket outlets have had the effect of eliminating the once excellent package; namely, the slatted wood crate packed with hand-wrapped citrus fruit. In place of this method is the now almost standard half-box size of fiberboard carton. The tissue wraps which once cushioned and separated the individual fruits are gone because they were no longer wanted and no longer needed. They were not wanted at the self-service stores because they accumulated as refuse at the fruit bins. They were not needed because, serving in their place are (1) the smooth interior of the fiberboard carton and (2) protection from dirt by the closed construction.

Hand labor, having become less attractive to the employee while more expensive to the employer, has given way to mechanization—a trend in all American industry. Where possible, therefore, hand place packing has given way to jumble pack or volume fill. Other mechanization serves in place of hand labor in many steps of preparation of the crop for market.

Theoretically, a mechanized process can do the job with no more injury to the commodity than the hand process that it replaces. Conceivably, mechanization might produce even less injury; practically, more injury is the usual expectation.

The reaching of more distant markets, together with mechanized packing, have required aids in protecting the produce which chemistry has been called upon to supply. Certain agriculture chemicals have always been used in preparing food crops, and citrus fruit is no exception. In washing the fruit to remove orchard dust and smudge and residues of orchard sprays, various soaps and other detergents have been employed, some of which, in themselves, have had a discouraging effect on the decay organisms that might have otherwise been carried on the peel surface. Other materials have been used in the warm soaking-tank solutions which contact the fruit for a few minutes after washing. In this treatment, the decay organisms in very small injuries of the peel are destroyed, or removed in the fresh-water rinse which follows.

In the old days, the wraps would be expected to prevent recontamination of the washed and treated fruit and the transfer of decay from one fruit to another, but now, with the packing of naked fruit in the cartons, we must depend on what are called in-package fungistats. This means we attempt to establish a chemical atmosphere in the carton such that contamination of new injuries, or recontamination of old ones, will not develop, with resulting decay losses. I should say will not develop to a serious degree, because there is always some loss in the commercial handling of any crop.

New chemical agents have been sought, screened for effects both good and bad, and some few promising ones have been found. It was most timely that the provisions of the Miller amendment, enacted mainly for insecticide chem-

icals, could equally serve in regulating fungistats. The similar pretesting of these fungistats, which are postharvest incidental additives, has established safe residue tolerances and reliable practices.

The Miller amendment, through its enforcement by the Food and Drug Administration, has thus assured freedom from hazard of the new agricultural chemicals to the maximum extent possible. Administration of the program of pretesting, as provided, is conceivably subject to future changes to effect reduction of costs to industry and Government, but adequacy as to safety is completely accepted. Very briefly stated, the operation is as follows: A registration of a new chemical is sought, together with a tolerance for residue in some raw agricultural commodity. Comprising the petition to be considered by the United States Department of Agriculture and the Food and Drug Administration of Health, Education, and Welfare will be evidence of desirability of use for the economic production of the crop, reproducibility of the chemical and its results, methods of analysis, residues involved under the prescribed conditions of use, toxicological data, extended feeding tests in two or more animal species over their normal life span and through reproduction cycles, and other data. If there is any doubt about accepting or rejecting a chemical under a tolerance status, the Food and Drug Administration can, does, and should require additional data, which prolongs the testing period. There is no question of health hazard in any agricultural chemical having Miller admendment status and complying with the requirements there provided.

PRESENT CONFUSION

Now there is, in my opinion, serious error in the atempted reconciliation of the new requirements of the Miller amendment with the old law and regulations pertaining to chemicals. Particularly troublesome are those regulations referring to declaration of so-called chemical preservatives. The old regulations were intended to cover chemical preservatives intentionally added as ingredients of processed foods. The trouble arises in the attempt to extend these to apply to the new situation; namely, to the case of incidental residues in or on raw agricultural commodities.

The citrus industry, which I represent, objects to deception. It believes that ingredients of foods should be set forth to the buying public by some sort of declaration at point of sale if such ingredients are present in amounts to function significantly as stated, implied or advertised. Materials, however they may be added; present in quantities which are inconsequential as to function have no right to be represented as ingredients.

Conversely, however small the quantity of an added material, reasonable absence of hazard because of toxicity should be assured by pretesting. This is one excellent provision which section 408 has added to our food laws. Without such assurance of absence of hazard, discussion of declaration of the added material would have no place or purpose; the added material, if not safe, should be, and is, prohibited by section 408 if a pesticidal chemical in or on a raw agricultural commodity.

Examination of the Miller amendment (sec. 408) and tolerances established thereunder shows it to refer to incidental additives. These are the residues of agricultural chemicals which have already functioned in their intended purposes. These residues are kept below tolerances established at levels representing complete safety. They are not required to measure up to any exacting yardstick of performance at the time the commodities are offered for sale. In short, they are spent and do not deserve any attention called to them as additives, useful or otherwise.

In no logical, moral, or legal sense can such incidental additives as provided under the Miller amendment, section 408, be considered as food ingredients. Some examples of these incidental additives and, in contrast, of genuine ingredients will illustrate this concept.

Pesticides applied to the growing crop preserve against the ravages of insects, fungi, and other pests because of the pesticidal concentrations of the chemicals at the time of treatment. The remaining subtolerance quantities, serving no useful purpose at time of sale, are incidental residues, need not be declared under present law and should not need to be declared.

Agents used for washing and treating the harvested commodities serve to clean and disinfect the unavoidable surface injuries. They leave inert subtolerance quantities which, again, are incidental residues and should not be declared.

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Fumigants and volatile in-transit fungicides or fungistats protect against attack by the unavoidable insect or microbial inoculation present at the time. Subtolerance residues of these do not protect against subsequent direct inoculation or inoculation after fresh injuries. The residues are incidental, useless, harmless, and should not be declared.

Contrast these last-named residues with chemically preserving food ingredients, such as the use of sodium benzoate in a bottled fruit juice. Such a bottle may be opened, subjected to contamination by airborne micro-organisms and reclosed, but still may be expected not to undergo spoilage. Fresh oranges, on the other hand, which have been removed from their in-transit environment of biphenyl vapor cannot be expected to keep. They cannot be opened and reclosed and still resist spoilage; they cannot even be minutely scratched and inoculated without high incidence of growth of decay organisms. No subtolerance residues of existing Miller amendment chemicals are capable of preserving citrus fruit in the true sense. They may be present because they are safe and unavoidable, but, since they are no longer functional, they should not have to be declared. To imply that they still have substantial utility is deception and leads to confusion, unfairness, and misunderstanding.

Incidental residues performing no function are not ingredients. To declare certain of them voluntarily is to deceive the purchaser into believing that these residues have a value in themselves which they do not have. Declaration of certain of them through compulsion by some inapt regulation or interpretation thereof can be not only confusing and deceiving as before but, also, becomes the cause of gross unfairness. When the consumer observes mandatory declaration of certain chemicals on one commodity but no declaration on another, he supplies his own logical but erroneous interpretation; namely, that a warning to him was necessary in the first but not in the second case. He would even suppose in the second case, where there was no declaration, that there were no agricultural chemicals used, which assumption would be completely false. The unfairness to consumers and producers is obvious.

Either all or none of the incidental residues should be declared and, to maintain the proper differentiation from food ingredients that perform a useful function, we believe no Miller amendment residues should be declared. Only if the Food and Drug Administration and industry fail to accept responsibility of assuring safety in raw agricultural commodities as provided by the Miller amendment would the public at large require specific declaration of the additives so that each consumer might pass judgment now expected of the Food and Drug Administration. The industry, at least, has no intention of returning to the buyer-beware attitude which, allegedly, prevailed in times long past.

IMPRACTICABILITY

Specifically, there are several approved fungistats or other chemicals variously used in packing citrus fruits. Although the residues are actually inconsequential, small, safe, and below the legal tolerances, the names of the chemicals are often formidable. Biphenyl, sodium-o-phenylphenate, and 2,4-dichlorophenoxyacetate are examples.

In attempted compliance with the law as interpreted by the Food and Drug Administration, declaratory counter cards are enclosed in the cartons and the retailer is expected to display these cards at point of sale. This is proving impracticable from the retailers' standpoint, as submitted evidence will clearly demonstrate.

We are not primarily concerned with what section of the law applies, or whether or not the authorities are properly interpreting and enforcing it. We are concerned only with the net results of these factors; namely, that we find the public in no way benefited, but confused, and ourselves in an intolerable competitive position with respect to foods competing with citrus.

We all know there has been much recent publicity directed to food additives, and that much of this has not been based on facts. Such publicity has resulted in undue concern and fear on the part of many people. In addition there are many "food faddists" who are constantly on the alert to avoid foods containing additives.

These groups, for one reason or another, believe food additives to be harmful in spite of their nature or quantity and in spite of any approval for use by the Food and Drug Administration. It is not our contention that these groups should be deprived of any rights they may have to select foods that meet with their approval. It is our contention, however, that the present status of labeling of

citrus fruits has created a more misleading situation for these groups and all other groups than would otherwise prevail. Anyone genuinely interested in avoiding residues on fresh fruit or produce is definitely not assisted by a declaration that citrus fruits are treated with biphenyl or other fungistats, for we must face the fact that practically no food commercially available today is free of residues. These incidental residues are recognized as unavoidable to the economical production and supply of large quantities of wholesome foods. Residues are the mark of progress in the science of food supply. Those countries whose foods lack these residues, as a rule, also lack an adequate food supply, and the available fresh fruit and produce is largely infected in one way or another and of general poor quality.

DISCRIMINATION

In the face of these circumstances, we find that the labeling of fresh citrus fruits to declare biphenyl or other materials causes many potential purchasers to avoid the product. This not only deprives the would-be purchaser of the nutritional and health values of the fruit, but does nothing to achieve their objective of avoiding residues, for, no matter what fruit they select other than citrus, a residue will not be avoided.

From a competitive point of view, we find ourselves handicapped in marketing fresh citrus fruits with a declared residue in competition with other fresh fruits having undeclared residues. Purchasers discriminate against our product in favor of others without, in fact, avoiding residues.

Fresh fruit and produce marketed in this country has, historically, contained residues from sprays or other sources, and these have not been declared. The prevailing practice of declaring residues for certain fresh products under certain conditions results in confusion and deception of purchasers. In the first place, the declaration is like waving a red flag of warning that there is something dangerous about the food or the residue and that it must be consumed at the purchaser's own risk. In the second place, the consumer is led to believe that only those foods so labeled contain residues, and others do not. Thus, citrus fruits have been singled out and placed in an unfair and unjust marketing environment.

SUMMARY

There is a need to change the law in order to justly correct the prevailing situation, both for the benefit of the consuming public and the producer. At first glance, the solution would appear to require that all residues on all fresh fruits and produce be labeled, regardless of the character of the residue, the time of application, or the reason for its use. I am sure that all those familiar with the problem will concede that such a proposal would definitely be impractical for many reasons. Since this is not the solution, and since the requirement for declaration for certain fresh foods under certain conditions has proven to be unsatisfactory for the reasons stated, there remains but one alternative. This is to modify the law so that declaration on the labels as to residues permissible under the Miller amendment is not required for any fresh fruit and vegetables. This is the only solution that will be fair to all producers and in the best interests of consumers. Such modification is respectfully requested.

SUNKIST GROWERS,
WILLARD E. BAIER.

MARCH 5, 1958.

Mr. WILLIAMS. At this time, I notice that I have some statements for insertion in the record.

I have a statement of Mr. L. S. Hitchner, executive secretary of the National Agricultural Chemicals Association, which, if there is no objection, will be accepted by the committee for the record.

Also, a letter over the signature of Mr. Ernest Falk, directed to the chairman of the subcommittee under date of April 15. Mr. Falk appears to be writing a letter on behalf of the Northwest Horticultural Council, 1002 Larson Building, Yakima, Wash.

If there is no objection, that, also, will be included in the record of the hearing.

(The documents follow:)

STATEMENT OF L. S. HITCHNER, EXECUTIVE SECRETARY, NATIONAL AGRICULTURAL CHEMICALS ASSOCIATION

Our purpose in submitting this statement is to express support for H. R. 9521 and urge its enactment.

The National Agricultural Chemicals Association is a trade association composed of manufacturers and formulators of agricultural pesticides and related chemicals. Its members produce and distribute more than 90 percent of the pesticide chemicals used in the United States.

We appreciate the opportunity of presenting our views on this bill.

H. R. 9521 is designed to give relief from a labeling requirement imposed under the provisions of section 403 (k) of the Federal Food, Drug, and Cosmetic Act. We understand that the labeling requirement has imposed hardships upon growers, shippers, and retailers of fresh fruits and vegetables. However, that is a matter outside our particular field of activity and competence, and we do not feel qualified to comment further on it. We restrict our remarks to other aspects of the issue involved.

We support H. R. 9521 because it would eliminate a labeling requirement which, in our opinion, serves no useful purpose and even operates against the best interests of the consuming public.

The point at issue under section 403 (k) of the Federal Food, Drug, and Cosmetic Act and the bill now before the committee is one of labeling raw agricultural commodities which have been treated with certain pesticide chemicals. There is no question of safety or effects upon the public health involved; it is solely one of labeling. Considerations of safety and protection of the public health, as regards the use of pesticide chemicals on raw agricultural commodities, are effectively handled under section 408 of the Federal Food, Drug, and Cosmetic Act. This section was added to the act by Public Law 518, 83d Congress, commonly referred to as the Miller pesticide residue amendment. It provides strict controls over the residues of pesticide chemicals in or on raw agricultural commodities. Its value and effectiveness in protecting the public health has been publicly noted by Food and Drug Administration spokesmen on many occasions, including appearances before this committee. The application of the preservative labeling requirement of section 403 (k) to fresh produce bearing traces of pesticide residues contributes nothing in this regard.

The mandatory labeling of fresh fruits and vegetables having fungicidal residues as having been treated with preservatives conveys to many food purchasers an incorrect impression. They look upon this labeling as a warning that the produce is not pure and wholesome. This is incorrect, since, as previously noted, the purity and safety of the produce is regulated under another portion, section 408, of the Federal Food, Drug, and Cosmetic Act.

We believe that such labeling practices which mislead food purchasers should not be encouraged or required. H. R. 9521 would eliminate the legal requirement for such labeling as regards fresh fruits and vegetables bearing residues of pesticide chemicals.

We consider the classification of pesticide chemicals on fresh fruits and vegetables as preservatives to be at variance with the intent of Congress in enacting 403 (k) of the act, with the common understanding of the meaning of the term "preservative," and with past administrative practices. The term "preservative" is commonly used in relation to substances added to processed foods to prevent their spoilage in storage. We believe that the term is not appropriately applied to a fungicide used on produce to give temporary protection against spoilage. H. R. 9521 would clarify the pertinent provision of the Federal Food, Drug, and Cosmetic Act so that the term "preservative" would not apply to any such pesticide chemicals when used on raw agricultural commodities which are produce of the soil.

In light of the foregoing, we again express our support of H. R. 9521 and respectfully endorse its enactment.

Your consideration of the foregoing is greatly appreciated.

NORTHWEST HORTICULTURAL COUNCIL,
Yakima, Wash., April 15, 1958.

Re. Haley bill, H. R. 9521.

Hon. JOHN BELL WILLIAMS,
Chairman, Subcommittee on Health and Science,
House Interstate and Foreign Commerce Committee,
Washington, D. C.

DEAR MR. WILLIAMS: The Northwest Horticultural Council represents almost all growers and shippers of apples, pears, and other deciduous tree fruits in the States of Washington and Oregon. We urge prompt and favorable action on the Haley bill, H. R. 9521.

Mr. J. Hardin Peterson will submit a statement at the hearings on April 21 as a representative of the fresh fruit and vegetable industry in the United States. We are one of the many groups on whose behalf Mr. Peterson will appear. We subscribe wholeheartedly to his statement.

We understand that it is contemplated that statements supplemental to Mr. Peterson's may be filed by various industry groups. Such a statement is being filed on behalf of the National Apple Institute, the International Apple Association, the Pear Bureau, and ourselves. We should like to add a few details supplemental to these broad statements.

We vigorously supported H. R. 7125, commonly called the Miller bill, which was enacted into law as Public Law 518 of the 83d Congress. This established a procedure for fixing tolerances and regulating the use of pesticide chemicals. This measure was essential to assure safety in the use of these chemicals and to protect the public.

Our immediate concern is with the use of sodium-o-phenylphenate, commonly called Stop Mold. This antimicrobial product is used to inhibit or prevent mold in our fruit during storage. No health problem is created when it is used as authorized by Food and Drug Administration and the Department of Agriculture. It clearly is not dangerous, and has been used for a number of years to deliver fruit to the consumer in better condition.

The Food and Drug Administration now assert that pesticide chemicals such as Stop Mold may be used only when section 403 (k) of the Federal Food, Drug, and Cosmetic Act (21 U. S. C. 343) is complied with. This section requires labeling where a food bears or contains any chemical preservative. For many years, pesticide chemicals, including Stop Mold, have been used in exactly the same way without any requirement for labeling.

The Food and Drug Administration proposed an order which would exempt preharvest pesticide chemicals from the requirements of section 403 (k) on the ground of impracticability. This order was issued on March 31, 1958. However, Food and Drug insists that, if the same chemical is used postharvest, the labeling requirement must be complied with. Last November, we filed a petition with the Food and Drug Administration outlining our use of Stop Mold and explaining the complications that would arise in the marketing of the fruit, and requested an exemption under section 403 (k). We filed 15 affidavits, together with a supplemental explanation. These affidavits showed the manner in which Stop Mold is used, established beyond question that no factor of public health or safety is involved, and pointed out that violations of the law were bound to result through inaccurate labeling and, most especially, through commingling of treated and untreated fruit at the retail level. Not all fruit is treated with Stop Mold. On the same day, some apples and pears, because of a particular condition, might be treated with Stop Mold while other fruit, going through another line in the same plant, might not require such treatment and would be packed untreated. Confusion and errors would result in the labeling. Moreover, if one box of treated fruit and a box of untreated fruit from the same shipper, or even from some other shipper, arrived at a grocery store, the clerk would not make any distinction but would put them into the same bin.

Not only would additional work and expense be involved, but the public would, generally, be confused by the placards or notices stating that the fruit had been treated with a chemical. To complicate the matter even more, some retailers would refuse to handle treated fruit because of the fear of incurring penalties for mislabeling. In our statements, we further pointed out that fruit is placed in consumer packages at many retail outlets. If you put some apples treated with Stop Mold, some untreated pears and some oranges treated with other chemicals in a consumer-size package, for example, a film-overwrapped tray, how could the retailer accurately label the package?

We sincerely believe that the public health is adequately protected under the Miller bill; that chemicals such as Stop Mold used postharvest are not chemical preservatives within the intent of Congress when the Food and Drug Act was passed, for they do not enter into the food, as is true where a number of ingredients are compounded or fabricated together; and that unnecessary expense will be imposed upon the fruitgrowers without any resultant benefit to the consumers, under the present Food and Drug interpretation.

Packers have to order supplies in advance. Labels are carried over from season to season. If different labels are required for treated and untreated fruit, each packer would be required to carry two sets of labels. Some existing labels could not be used.

We must earnestly urge an early and favorable report on this bill by your committee, and ask that every step be taken to expedite passage of the bill at this session of the Congress so that the uncertainty may be resolved and the industry permitted to continue to operate as at present without exposing packers, wholesalers, and retailers to liability for the almost-certain-to-occur violations. Also, the industry should be spared the necessity of incurring additional unnecessary expense. In view of our experience, and the experience of citrus packers, we fear that relief cannot be obtained through administrative channels, but only through legislation which clearly states what we believe was the intention of Congress that the regulation of chemical preservatives was intended to cover instances where ingredients were fabricated together, but not pesticides or fungicides used to treat fresh fruit after harvest.

Sincerely yours,

ERNEST FALK, *Manager.*

Mr. WILLIAMS. We have several other witnesses who are scheduled to appear this morning, all of whom I assume are proponents of the legislation.

It would expedite matters considerably, unless these witnesses have additional arguments which have not already been presented to the subcommittee, to have their statements included in the record and permit the committee to proceed to give the Food and Drug Administration the opportunity to testify.

We have Mr. Williamson, Mr. Armstrong, Mr. Burrows, Mr. Datt, and Mr. Ed Brown Williams all scheduled to appear this morning. I would like to ask if any of these gentlemen would be agreeable to have their statements be included in the record.

Mr. DATT. I have a statement I will be very glad to file. We have the two retail witnesses. They have very short statements. They may be willing to file those and make a very few brief verbal comments. I would like to have you hear from them because their viewpoint is very important in this matter.

Mr. WILLIAMS. All right, sir.

Will you keep your statements as brief as possible? We do not want to cut anyone off, of course, but in the interest of time, and I think probably in the interest of the legislation itself, it would be wise for us to proceed as expeditiously as possible with this hearing.

First, are there any questions of Mr. Baier?

Mr. DINGELL. No.

Mr. WILLIAMS. Mr. Loser?

Mr. LOSER. No.

Mr. WILLIAMS. Thank you very much, Mr. Baier.

Our next witness scheduled is Mr. John C. Datt, American Farm Bureau Federation. Mr. Datt has requested that his statement be placed in the record.

Mr. WILLIAMS. Mr. H. Denton Williamson, American Stores Co., of Philadelphia.

Mr. Williamson, you do have a prepared statement, do you?

Mr. WILLIAMSON. Yes; I do. It is not very long, and I will try to cover it as briefly as possible.

Mr. WILLIAMS. Mr. Williamson, I may say that the committee will be glad to accept the entire statement. I notice it is only three pages, but we would be glad to accept the text of the statement for printing in the record of the hearings.

STATEMENT OF H. DENTON WILLIAMSON, AMERICAN STORES CO., PHILADELPHIA, PA.

Mr. WILLIAMSON. I will say that this deals somewhat differently with the situation, I believe, than some of your previous witnesses inasmuch as I represent a retail food store group. I will skip over this in order to conserve some time.

I will be glad to file this paper with you as it is.

In the first place, I would like it to be known that I would not be here if there was any question about the public health in any way being endangered by supporting this legislation. As it is now interpreted, it is practically impossible, certainly impracticable, to think that these regulations as they are now interpreted can be carried out in a retail food store.

It is my opinion that as of right now practically every food store in the Nation is in violation. Where this violation concerns criminal prosecution, I think that serious consideration should be given quickly to amending anything that would be of such severe action.

To enforce the regulation of that type, of course, would require a great army of men at a tremendous expansion, and then I doubt if it could be done 100 percent in its present form.

Mr. WILLIAMS. Mr. Williamson, you represent the retailers, I believe?

Mr. WILLIAMSON. I represent my particular company, the American Stores Co., of Philadelphia. We are the fourth largest chain in the country. We have retail food stores in 7 States in the Middle Atlantic district.

Mr. WILLIAMS. As a retailer, of course, you speak of the problems that are encountered by the retailers.

Mr. WILLIAMSON. By all the retailers, I am sure.

Mr. WILLIAMS. Do the present regulations add to the cost of your operation?

Mr. WILLIAMSON. Sir, the present regulations are so little known that it is a safe statement, I believe, to make that a big majority of retailers do not know anything about this. Therefore, they are in violation.

We have tried to make this known to our stores by putting out a notice, such as this one, concerning diphenyl used as a preservative, which would be in conjunction with a display.

Other shippers have provided slips such as these to also be used.

But any given display of merchandise, fresh fruits or vegetables, that are not so treated would be in violation. If they were not treated and have such a poster there, they would be in violation.

I do not believe it is the idea of our Government to force an undue hardship on a retailer.

I believe that there is bound to be, very likely, a predominant number of violations as compared to compliances.

Mr. WILLIAMS. I assume, as a retailer, you feel that the proposed regulations are, from your standpoint, utterly unreasonable.

Mr. WILLIAMSON. I do. They are incapable of being carried out to the letter. That is my opinion.

Mr. WILLIAMS. Thank you very much, Mr. Williamson.

Does that complete your presentation?

Mr. WILLIAMSON. I think so.

Mr. WILLIAMS. With the inclusion of your entire statement?

Mr. WILLIAMSON. Yes, sir.

Mr. DINGELL. May I ask a question?

Mr. WILLIAMS. Mr. Dingell has a question.

Mr. DINGELL. Thank you, Mr. Chairman.

Briefly, the question is this: Your objection to the present practices and present regulations of the Food and Drug Administration is that you get the food labeled and that you then have to place a label over the bin of the agricultural commodity in question showing it has been treated with some postharvest preservative; is that right?

Mr. WILLIAMSON. Yes; I would say that is essentially right.

Mr. DINGELL. Your principal objection is the problem you have in placing a label over the bin; is that right?

Mr. WILLIAMSON. Well, the way that it would have to be handled, it leaves so much leeway for error.

Mr. DINGELL. That is your principal objection?

Mr. WILLIAMSON. It is just impractical. That is my objection, the impracticability of the thing.

Mr. DINGELL. Of the placing of the labeling over the bin? I am trying to narrow down the objection. You do not care about the label on the box saying it has been treated by biphenyl?

Mr. WILLIAMSON. I have no objection to that.

Mr. DINGELL. As a matter of fact, you would rather like to know what is coming in the boxes that you are getting, would you not?

Mr. WILLIAMSON. For many years we have received a number of commodities without that information, and without endangering the public health.

Mr. DINGELL. But you would face a lawsuit, wouldn't you, on the foods that you distribute to the people as the seller?

Mr. WILLIAMSON. On fresh fruits and vegetables?

Mr. DINGELL. Fresh fruits and vegetables; any commodity you sell, you are subject to a lawsuit on; are you not?

Mr. WILLIAMSON. I am not that well posted technically. I do not know. We do not experience that. I never heard of anything like it.

Mr. DINGELL. Do you think that is something that you ought to be prepared to answer, that you ought to know in the food business what your liabilities are as a seller of foods to the consuming public?

Mr. WILLIAMSON. I have been in this business for a number of years and I have not experienced that. Of course, for instance, we get apples from the Northwest. We get apples from anywhere. We know they have been treated with some kind of spray material. There is a spray residue that remains that is within tolerance. If it is not within tolerance, the very efficient Food and Drug Administration has taken action in those cases. I know of some of those.

Mr. DINGELL. Do you not think, as a seller of foods, that you would like to know what is in the foods that you sell? Maybe you would not carry a specific food.

Mr. WILLIAMSON. I would like to know, just as you, sir, that it is safe if they say it has diphenyl in it. I do now know what it is; I am not well posted.

Mr. DINGELL. I will tell you what it is. It is extremely toxic, not in the amount it is used in, but it has been as toxic as all get out.

Mr. WILLIAMSON. If it is within the tolerance of the regulation?

Mr. DINGELL. Don't you like to know what is on the box that you receive?

Mr. WILLIAMSON. Not particularly. I want to know that the merchandise is good, it is fresh, it is what I bought, what we can put on sale, and sell at a profit. That is really my concern.

Mr. DINGELL. You mean, to sell at a profit?

Mr. WILLIAMSON. We are not a charitable organization.

Mr. DINGELL. Thank you very much.

Mr. WILLIAMS. Mr. Loser?

Mr. LOSER. No questions.

Mr. WILLIAMS. Thank you very much, Mr. Williamson.

Mr. WILLIAMSON. Thank you very much.

(The prepared statement of Mr. Williamson follows:)

STATEMENT OF H. DENTON WILLIAMSON, AMERICAN STORES CO., PHILADELPHIA, PA.

Mr. Chairman, members of the committee, my name is H. Denton Williamson, and I am produce procurement executive for American Stores Co., with headquarters in Philadelphia, Pa. American Stores Co. is the fourth largest food retailing organization in the United States, operating Acme Super Markets and other high-volume retail food markets throughout the East.

I appreciate this opportunity to express my views on the situation resulting from the position of the Food and Drug Administration which requires the labeling at all stages of distribution, including the retail food store, of fresh fruits and vegetables which bear residues, however harmless, of approved chemicals applied postharvest to retard deterioration.

In the first place, I would not be here if there were any question of danger to public health in this situation. On the other hand, it is my understanding that procedures are established for the safe use of pesticide chemicals by the Miller amendment to the Federal Food, Drug, and Cosmetic Act, and that tolerances for such chemicals are thereby determined and certified. Therefore, the public health cannot be a factor in this situation.

I understand the Food and Drug Administration considers fungicides to be chemical preservatives even though they are used on fresh fruits and vegetables. For this reason, apparently, FDA requires that postharvest treated fresh produce must bear labels or placards indicating that they have been treated with chemical preservatives, and the labels usually must name the chemical or chemicals used. It is also my understanding that it is a violation of the law if a retail display of a fresh fruit or vegetable which bears a harmless residue of a pesticide chemical is not properly labeled, and that it is just as much a violation if an untreated fruit or vegetable display accidentally is placarded to show it has been treated. What happens when a single display bin of a fresh fruit—apples, for instance—contains a mixture of treated and untreated fruit? Such a display cannot be properly labeled. For that matter, it is impossible to distinguish between the treated and untreated fruit when displayed together.

It is universal retail merchandising practice that displays of fresh fruits and vegetables are refilled during the business day from time to time. Displays at the beginning of the day may contain several commodities which bear residues within tolerance of approved pesticide chemicals. Appropriate placards may be in place. However, additional supplies of the various commodities which are put in the display bins during the day are likely to come from different lots of merchandise and even from different packinghouses. These lots may be treated with entirely different approved chemicals, or may even be untreated. When this occurs, of course, there is a violation of the law under the present FDA ruling, because some of the merchandise is misbranded. The only alternative is to maintain a display space containing a few pieces of merchandise, with the

proper label, and to put the new merchandise into an entirely different bin with a different label or no label at all, as the case may be. Obviously, such a practice would be impractical, and impossible to achieve. The required extra display space simply is not available. Even if space were available, the displays would be unattractive. Even then it would be asking too much of produce clerks to keep displays and placards precisely segregated as customers handle and move the merchandise during shopping.

We cannot understand why we must be put into a position such as I have described, when there is no danger to public health and when the Commissioner of Food and Drugs has the power to grant exemptions from labeling because of impracticability. We have followed with interest the attempts of the fresh fruit and vegetable industry to relieve us in the food retailing business of this unnecessary, impractical, and arbitrary FDA ruling which requires labeling. We have been disappointed that informal efforts to work out a solution to this problem have not been successful.

We are convinced of the merits of using modern pesticide chemicals on fresh fruits and vegetables. We know that public health is protected. Our experience indicates that our customers are getting fresher fruits and vegetables as a result of the use of pesticide chemicals. We know that losses from spoilage are minimized when these substances are used, thereby making possible more reasonable prices to consumers. Despite these undeniable advantages, however, we may be forced to refuse to buy produce which has been treated with pesticide chemicals. The reason for this conclusion is simple enough. We cannot risk inadvertent violation of the regulations as now interpreted by the Food and Drug Administration, and possible prosecution.

I urge you to approve H. R. 9521 without delay, since its enactment should assure us of relief from an unnecessary and intolerable situation.

Mr. WILLIAMS. The next witness is Mr. William Armstrong, manager, produce division, Gristede Bros., New York.

I presume you are also a food retailer?

Mr. ARMSTRONG. Yes, Mr. Chairman.

STATEMENT OF WILLIAM ARMSTRONG, MANAGER, PRODUCE DIVISION, GRISTEDE BROTHERS, INC., BRONX, N. Y.

Mr. ARMSTRONG. Mr. Chairman and gentlemen, my statement is pretty much along the same lines of Mr. Williamson, and in the interest of time I would like to turn my statement in. However, I would like you to give some careful consideration to the problems that the retailer has at the present time, and this certainly would add to some of the problems that we cannot tackle and handle intelligently, as it is now.

We fear very much these strange sounding names that would put a certain fear in the customer's mind, and we love our customers and we would like to keep them.

If there are any questions that you have, sir, I would be glad to answer them. Other than that, that is about the gist of my statement.

Mr. WILLIAMS. Thank you very much, Mr. Armstrong.

Mr. DINGELL. I have just the same question that I asked the previous witness. Your principal objection is to the posting of signs over the bin, isn't that right, as to the commodity that is marked?

Mr. ARMSTRONG. That, and trying to control the right sign over the right commodity that has been supplied with this, that, or the other thing.

Mr. DINGELL. If we were to absolve you of the responsibility of placing the sign over the bin, you would be satisfied?

Mr. ARMSTRONG. Very much so.

Mr. DINGELL. You would also find it, in fact, desirable, would you not, to know what is in the boxes of fresh agricultural commodities that you receive?

Mr. ARMSTRONG. To repeat what Mr. Williamson said——

Mr. DINGELL. I do not want you to repeat what Mr. Williamson said. I want to know what you say.

Mr. ARMSTRONG. My statement is that I am concerned with buying the best possible packages because I have to sell them. If it is not fresh, I have no end of problems. As far as the sprays are concerned, that is the grower's and the farmer's problem to bring it up to the level that I am interested in selling it.

Mr. DINGELL. Let us just take a for instance. I do not know that this is possible, but assuming that it might be possible to treat these commodities with something that would make them look fresh, where they are not fresh, wouldn't you want to know that treatment had gone on, independent of what the Food and Drug people would be doing?

Mr. ARMSTRONG. If it would benefit any commodity that I would handle, naturally I would be in favor of it. But when it came to the consumer. I think it would definitely interfere with her buying my commodity, and she would favor her business in some other branch of my store or just bypass our fresh line.

Mr. DINGELL. I am not talking about the consumer, I am talking about what you would be doing.

In other words, you would like to see what is in the commodities in the box that you get. I am not talking about the consumer at all. We are just talking about the marketing of the box, with the commodities and the items that the commodities contain.

You would like to know what are in those boxes when they hit your store; wouldn't you?

Mr. ARMSTRONG. Very definitely.

Mr. DINGELL. You assume certain responsibilities?

Mr. ARMSTRONG. That is right.

Mr. DINGELL. I assume you are vigilant in carrying out that responsibility. Most of our retailers are. I would assume you would like to know what the foods are at the time they hit your gate. You have problems of hanging the signs over the display. and I understand that, but as far as knowing what hits your gate, your warehouse, or the doors of your individual stores, you would like to know what is in the box as it came to you; wouldn't you, sir?

Mr. ARMSTRONG. I would say so; yes, sir.

Mr. DINGELL. You would say that would be helpful to you, sir?

Mr. ARMSTRONG. It would be helpful if it in any sense of the word improved the condition or the arrival of the product that I bought.

Mr. DINGELL. Or knowing that the product you were going to sell to your customers was safe?

Mr. ARMSTRONG. That is right.

Mr. DINGELL. And to help you give them wholesome and proper goods and safe and adequate food?

Mr. ARMSTRONG. That is what we are mainly interested in.

Mr. DINGELL. Thank you very much.

Mr. WILLIAMS. Is it not a fact what you are interested in when you order a box of apples or a carload of apples—these are not necessarily in the order of their importance—is, first, that you are getting the

quality that you are paying for; second, that they are safe for human consumption, for the purpose for which you intend to sell them; and, third, that they are marketable?

Beyond those points, do you have any interest in what is in that box? I might add quantity, too, that you are getting what you paid for, that they are safe for human consumption and up to the quality that you are paying for, and, third, that they are marketable.

Mr. ARMSTRONG. Yes, Mr. Chairman, in whatever order you would mention it, I would go along with that; yes, sir.

Mr. WILLIAMS. And if they had some chemical on them as a preservative which the Food and Drug people have already said is completely harmless, that does not make a bit of difference to you whether you know what that chemical is or not, does it?

Mr. ARMSTRONG. As long as it is not harmful to the public, that is what we are mainly concerned with.

Mr. WILLIAMS. Mr. Loser?

Mr. LOSER. I have nothing at all, Mr. Chairman.

Mr. WILLIAMS. Thank you very much, Mr. Armstrong.

(The prepared statement of Mr. Armstrong follows:)

STATEMENT OF WILLIAM ARMSTRONG, MANAGER, PRODUCE DIVISION, GRISTEDE BROS., INC., BRONX, N. Y.

My name is William Armstrong, I am manager of the produce division of Gristede Bros., Inc., New York. My company operates 116 retail food stores in the metropolitan New York area, including many large supermarkets.

I am here to appeal for consideration and prompt approval of H. R. 9521. This would relieve us from what we believe is an unnecessary and impracticable ruling of the Food and Drug Administration which requires the labeling at retail of fresh fruits and vegetables treated after harvest with pesticide chemicals. It is my understanding that this labeling has been deemed necessary even though there is no danger whatever to the public health, since the so-called Miller amendment to the Federal Food, Drug, and Cosmetic Act provides procedures for the establishment of safe tolerances for the use of pesticide chemicals on fresh fruits and vegetables.

It is difficult for me to believe that anyone should expect busy clerks in retail food stores to keep placards or other signs straight to identify items of produce which have been treated with chemicals, when the next containers of those items to be used for replenishing shopped-down displays may be from another lot which has been treated with another chemical, or perhaps not treated at all. Under the FDA ruling, we could not possibly label displays of this type correctly in circumstances such as this, and so we would be subject to prosecution. We certainly cannot afford to build entirely separate displays of those items. While this may be difficult for the Food and Drug Administration to understand, it is what we, as retailers, are faced with. The whole procedure of labeling is all the more pointless in my mind since there is no question of safety so far as human consumption is concerned.

Another thing which must be considered is the customer reaction to strange chemical names or even to a sign saying that a fresh fruit or vegetable has been treated with a chemical preservative. We love our customers, and we want them to continue to come into our stores and buy their fresh fruits and vegetables, but we wonder if signs bearing chemical names will not stop or retard the sales of these products by creating unnecessary doubts and fears in their minds.

The basis for the position of the Food and Drug Administration that the labeling in question is necessary is that these substances used on various fresh fruits and vegetables are "chemical preservatives." Technically, this may be true, but I would like to express my opinion that consumers think of chemical preservatives as being used with canned, frozen, or otherwise processed foods—certainly not with fresh, raw fruits and vegetables. In addition, I believe that this idea must have been in the minds of the people who developed and brought into being the existing laws. And so again it seems to me as a layman that the labeling requirements of the Food and Drug Administration as they pertain to

fresh fruits and vegetables are wholly unnecessary and not within the meaning or the original intent of the law.

It is my understanding that the Food and Drug Administration has been unwilling, or at least in their opinion, unable to make the necessary changes in the regulations which would exempt treated fresh fruits and vegetables from the labeling requirements, even though such exemptions may be made by the FDA Commissioner when such labeling is impractical.

Therefore, I urge the approval and prompt passage of H. R. 9521, which would amend the law to provide clearly for the necessary exemption and which would relieve the fresh fruit and vegetable distributors and retailers of the Nation from what is obviously an unnecessary, impractical, and unworkable labeling regulation.

Mr. WILLIAMS. Our next witness is Mr. Fred Burrows, executive vice president, International Apple Association.

STATEMENT OF FRED W. BURROWS, EXECUTIVE VICE PRESIDENT, INTERNATIONAL APPLE ASSOCIATION, INC., ON BEHALF OF THE APPLE AND WINTER PEAR INDUSTRIES

Mr. BURROWS. Mr. Chairman, members of the subcommittee, with your permission I would like to cover a few important points on this matter that may not be clear in the minds of the committee members, and trust that our formal statement will be made a part of the record.

In passing, I would like to remark that that statement is made on behalf of the apple and winter pear industries.

Mr. WILLIAMS. This committee will be glad to accept your entire statement for the record, if there is no objection.

Mr. BURROWS. Thank you.

(The prepared statement of Mr. Burrows follows:)

STATEMENT BY FRED W. BURROWS, INTERNATIONAL APPLE ASSOCIATION, INC., ON BEHALF OF THE APPLE AND WINTER PEAR INDUSTRIES

This statement is made on behalf of the National Apple Institute, Washington Building, Washington, D. C., the Northwest Horticultural Council, Larson Building, Yakima, Wash., the Oregon-Washington-California Pear Bureau, 813 Southwest Alder Street, Portland, Oreg., and the International Apple Association, Inc., 1302 18th Street NW., Washington, D. C. These organizations represent practically all of the commercial apple and winter pear producers and shippers. In addition, the International Apple Association has in its membership a large number of distributors of these commodities, including a number of the larger chain retailers.

We appreciate the opportunity of making our views, in wholehearted support of H. R. 9521, known to the subcommittee.

We are signators and concur in the opening statement of the fresh fruit and vegetable industry to be presented by Mr. J. Hardin Peterson. Therefore, we do not believe it is necessary to reiterate the reasons advanced in Mr. Peterson's statement as to why passage of this legislation is so essential to the best interests of consumers and our industry, or to the impracticability and unreasonableness of the FDA ruling. We do wish to emphasize certain points and introduce additional evidence as it regards our particular crops.

First, it is important to understand that there is no issue here concerning the public health and safety. None is involved either in the FDA ruling or in the proposed amendment clarifying the term "chemical preservative" as it pertains to section 403 (k) of the act. The FDA has acknowledged this to be the case.

As you well realize, no pesticide chemical may be used unless a safe residue tolerance or exemption from tolerance has been established and approved by the FDA under the pesticide chemical amendment (the Miller Act).

Passage of H. R. 9521 is essential, in light of FDA's new ruling that certain pesticide chemicals (fungicides) are "chemical preservatives" and therefore must meet the labeling requirements of section 403 (k) if applied after harvest. Such a ruling seems arbitrary and, as testimony of other witnesses will dis-

close, will confuse and misinform the consumer and will handicap and limit the supply of these essential foods, as well as increase the price.

Should recent, even more arbitrary actions proposed by FDA (which will be discussed more fully later) hold, the enactment of H. R. 9521 becomes an immediate necessity and may require additional clarifying legislation in the next session of Congress.

We contend that Congress never intended that the labeling requirement of 403 (k) be applicable to any chemical used on fresh fruits and vegetables, preharvest or postharvest. We also contend that the FDA also interpreted 403 (k) in the same manner until just recently. This contention is based on the fact that FDA for 16 or 17 years did not apply the preservative labeling requirement even though many of the pesticides now considered as chemical preservatives (by FDA) have for many years been used on raw agricultural commodities and, more specifically, on fresh fruits and vegetables.

Section 403 (k) provides for an administrative exemption on the grounds of impracticability. In addition to our contention that Congress never intended that the labeling requirement of 403 (k) apply to fresh fruits and vegetables, we also contend that such practice is utterly impracticable at the grower, shipper, wholesaler, and retail levels. Voluminous evidence to substantiate this claim was submitted in a joint petition to FDA on April 2, 1957. FDA turned the petition down. We assume this petition will be filed with the committee as evidence by Mr. Peterson.

The Northwest Horticultural Council, Sunkist, and others also submitted petitions seeking relief from the labeling requirements of section 403 (k) for specific commodities. The council's petition was supported by 15 grower/shipper affidavits clearly demonstrating impracticability. One of those affidavits by R. R. Reter, Reter Fruit Co., Medford, Oreg., is attached as exhibit A. Although it covers pears only, identical circumstances prevail for apples and same was shown in the other affidavits.

The FDA denied any relief under section 403 (k). That is the reason we are sincerely urging early passage of H. R. 9521.

On April 4, 1958, the Federal Register carried two notices:

One is the "Final order amending definition of 'chemical preservative' and exempting fruits and vegetables bearing chemical preservatives applied prior to harvest from labeling requirements." By this order, the Food and Drug Administration imposes the "preservative" labeling requirement, for the first time, on postharvest protective treatments of fresh produce. (See exhibit C.)

The second is titled "Proposed Exemption of Citrus Fruit Bearing Chemical Preservative From Labeling Requirements at Time of Retail Sale" (see exhibit B).

But this is a misnomer. Its effect upon fruits and vegetables in general is not to exempt but to cover them with requirements which are new, and astonishing to us.

The proposal strikes us as being unreasonable and arbitrary because:

1. The FDA proposal introduces an entirely new concept by bringing into play another section of the act, 403 (i) (2), which has never before been considered applicable to our commodities, nor even mentioned in the discussions between the FDA and the fruit and vegetable industry. Section 403 (i) (2) says that if a food is not subject to 403 (g) (requires definition and standard of identity) and that, "in case it is fabricated from two or more ingredients," the label shall bear "the common or usual name of each such ingredient" or it will be deemed misbranded. Applicability of section 403 (i) (2) can only be based on a strange presumption that fruits and vegetables are fabricated food products. Surely it was never intended that the word "fabricated" so carefully chosen for precise meaning in the law should have that meaning so distorted.

2. The proposal would give citrus only partial (and ineffective) relief from the heretofore unapplicable section but at the same time would impose it upon all other fruits and vegetables.

3. On one hand, the proposal—while making the other fruits and vegetables subject to the section (and the claim that they are fabricated)—limits introduction of further evidence to only the practicability or impracticability of labeling citrus fruit under section 403 (i) (2). Evidence relative to other fruits and vegetables would not be admissible.

How in the world the FDA can claim that section 403 (i) (2) applies to fresh fruits and vegetables is beyond comprehension. To even infer that fresh fruits and vegetables are "fabricated" is unbelievable and is entirely unsupported by the legislative history, the dictionary and applicability of section 403 (i) (2) as

interpreted by the sound thinking men who lived with and worked for the enactment of this act for many years.

The legislative history is definite that raw agricultural commodities are not "fabricated." For example, in the debate in the Senate on S. 2800 (73d Cong.), Senator Copeland, in discussing certain language relative to labeling, expressed deep concern that the wording that the label bear, "* * * the common or usual name of each ingredient such food bears or contains in the order of predominance by weight * * *" would require an applegrower to show on his label that an apple contained so much pectin, malic acid, sugar, etc. Therefore to eliminate any possibility that this applied to raw agricultural commodities the Senators struck out the word "such" and inserted "which any fabricated." The wording then read that the label bear, "* * * the common or usual name of each ingredient which any fabricated food bears or contains in the order of predominance by weight * * *"

The legislative history contains many similar indications of legislative intent.

The dictionaries all give clear definitions of the verb "fabricate" to mean, "to construct or shape by labor or art; to make; to manufacture." Raw agricultural commodities do not meet the definition.

Faced with all this, the first necessity is enactment of H. R. 9521. With it, we submit this urgent need for definite language in the committee report completely refuting the FDA's claim that fruits and vegetables are "fabricated."

Should this strange interpretation stick, that raw agricultural commodities are fabricated, it would open up a whole new vista for FDA "to play in" that would prove disastrous to the consumer and the Nation.

Now we come to a peculiar contradiction between the "Final Order" (exhibit C) and the "Proposed Regulation" (exhibit B). In one breath in the "Final Order" the FDA exempts (1) insecticides and herbicides and (2) all pesticides applied prior to harvest, from the labeling requirements of section 403 (k) and in the "Proposed Regulation" the FDA may be saying the label must bear the names of all chemicals, whether preharvest or postharvest. We do not know. How can we know where further interpretations of this kind may lead?

We are opposed to misinformation and confusion. We sincerely believe that much confusion and misinformation would inevitably result from these recent actions by the Food and Drug Administration. Never before has the so-called preservative labeling requirements been placed in this kind of dependency upon uncontrollable human factors at retail. We see no way out of this untenable situation other than clear-cut legislative action.

For all these reasons, we urgently and sincerely request early favorable consideration by the committee of H. R. 9521 exempting fruits and vegetables bearing residues of applied chemicals from the labeling requirements of section 403 (k). Further, we hope and urge that the committee report carry language clearly indicating fresh fruits and vegetables are not fabricated and therefore section 403 (1) (2) does not apply.

We appreciate the opportunity to present our views.

EXHIBIT A

AFFIDAVIT OF RAYMOND R. RETER, SUBMITTED TO THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE, FOOD AND DRUG ADMINISTRATION

STATE OF OREGON,
County of Jackson, ss:

Raymond R. Reter, doing business as Reter Fruit Co., being first duly sworn on oath, deposes and says: That he is the sole owner of Reter Fruit Co., whose principal office is at 327 South Fir Street, Post Office Box 1027, Medford, Oreg.

That he makes and submits this affidavit in response to the notice published in the Federal Register on July 31, 1957, with reference to the proposed amendment of definition of "chemical preservative" and in support of an application for exemption for the pear and apple industry from the labeling requirements contained in section 403 (k), insofar as the use of sodium-o-phenylphenate is concerned.

Reter Fruit Co. has approximately 1,000 acres of orchard which we either own or operate in the Rogue River Valley in southern Oregon. We also operate 2 packinghouses and 2 cold storage plants. In addition to packing and cold storing apples and pears which we have grown on our own ranches, we pack and cold-store fruit for other growers.

We grow, harvest, process for packing and pack pears of the following varieties: Bartletts, Howells, Red Bartletts, Packham Triumph, Bosc, Anjou, Comice, Winter Nelis, Seckels, P. Barry, and Delicious apples.

As many as five of these varieties may be processed in the same house at the same time. Some varieties being run on one unit of equipment may be treated with sodium-o-phenylphenate, hereinafter called by its common name "stop-mold," while other fruit of the same variety being run on other units will not be treated with stop-mold.

Almost all of our fruit is processed and packed immediately after harvesting. A number of factors will determine whether the fruit is to be treated with stop-mold. For example: the variety, the maturity of the fruit at the time it is harvested and the market it is intended for, rain during harvest season which activates mold spores. Fruit which we know we will export early in the season and fruit of an advanced maturity when harvested which will be sold early, will not be treated with stop-mold, whereas fruit which we expect to store for a considerable period of time will be treated with stop-mold.

Our varieties of pears have, according to their maturity at time of picking, certain storage life. Fruit intended for long-term storage will obviously benefit most by treatment.

The fruit which is treated with stop-mold is moved on a moving conveyor system at a fixed speed through a stop-mold solution with a concentration of approximately 0.6 of 1 percent. The immersion time is approximately 30 seconds. The fruit is immediately adequately rinsed in pure clear water which is not reused. The fruit then is graded, sized, and packed. Almost all of the fruit is wrapped in paper wraps and place-packed in boxes. Some of the fruit is not wrapped but is placed loose in L. A lugs or is used in gift packages.

All of our boxes are labeled in advance of distribution to the packer. Our labels are ordered in the winter or spring and are affixed to the box heads before the box is assembled. This year between 75,000 and 100,000 box heads were labeled prior to July 31 and before a single box was assembled. We will use 5 or 6 different types of boxes. These boxes, appropriately labeled, are distributed to the packers by an overhead line conveyor. The packer will take a box from this conveyor of the type and label suitable for the fruit which she is about to pack. After the fruit is packed, it is placed upon a conveyor system and the variety, grade, and size are stamped on the box. The fruit from all or several of the conveyor lines is then moved to and through one lidding machine. Thus, at the same time a number of different varieties of fruit will be going through the lidder, some of which has been treated with stop-mold and some has not been treated.

The packed boxes are segregated by variety, grade, size, lot number and segregated in various storage rooms. The fruit is then shipped by us as it is sold. We will first ship out the fruit which appears to have the shortest storage life and hold that which can be most safely held in storage. Frequently we will include several varieties and different grades of a variety in one car. This is true both on f. o. b. sales and auction shipments. Thus, in one car there could be both treated and untreated fruit of the same variety.

We check the maturity of the various lots as the fruit is being packed. Therefore, we will not know from one hour to the next what treatment will be given to fruit which we will next pack.

From the foregoing it is apparent that it would be extremely difficult, almost impossible, and certainly impractical to have the packers select the correctly labeled box if a distinction has to be made between treated and untreated fruit. The possibilities of error and consequent mislabeling are apparent and it would be almost impossible and impractical to check on the packers if we are to continue to use stop-mold in the manner we have for years. Stop-mold serves a useful purpose and we are told is completely safe from a health standpoint.

In addition to the difficulty of having the packer select a box with the proper label showing treatment or nontreatment with stop-mold, we would run into a further problem in segregating the fruit and in making shipments. As stated, treated and untreated fruit is frequently included in one car to either the auction or to a buyer who purchased f. o. b. The problem facing a retailer who would receive both treated and untreated fruit is obvious. It would further be complicated by the fact that the retailer might receive fruit from two different areas, some of which was treated and some untreated. Separate displays and placards would be required. Confusion and error would almost inevitably result.

Someone might suggest that notice to the consumer could be given through printing on the wraps. However, the difficulty in selecting the proper type of wrap by the packers is obvious. Packers switching from untreated to treated fruit or vice versa could overlook change of wraps and fruit would then be mislabeled. It would be impractical to print wraps by size and type of paper.

From my personal knowledge over many years in the fruitpacking business, it is my sincere and considered opinion that it would be burdensome and difficult, almost impossible, and certainly impractical for our industry to comply with the labeling provision of section 403 (k) insofar as the use of stop-mold is concerned. If we endeavored to comply, we would be almost certain to run into many situations where the wrong wraps were used or where untreated fruit was packed in a box labeled for treated fruit or vice versa. The problem of segregating, storing, and shipping would be greatly complicated. The possibility of erroneous information to the buyer would be further complicated by difficulties at the retail level. I earnestly join in and support the application for exemption from the labeling requirements of section 403 (k) for apples and pears treated with sodium-o-phenylphenate, for which tolerance as a pesticide chemical has been fixed by the Food and Drug Administration.

RAYMOND R. RETER.

Subscribed and sworn to before me this 9th day of September, 1957.

GEORGIA W. HESS,
Notary Public in and for the State of Oregon, residing at Medford, Oreg.

My commission expires September 14, 1959.

[Published in the Federal Register April 4, 1958]

EXHIBIT B

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

FOOD AND DRUG ADMINISTRATION

(21 C. F. R. Pt. 1)

REGULATIONS FOR THE ENFORCEMENT OF THE FEDERAL FOOD, DRUG, AND COSMETIC ACT

PROPOSED EXEMPTION OF CITRUS FRUIT BEARING CHEMICAL PRESERVATIVE FROM LABELING REQUIREMENTS AT TIME OF RETAIL SALE

Notice is hereby given that petitions have been filed by American Farm Bureau Federation, United Fresh Fruit and Vegetable Association, and Sunkist Growers, requesting that fresh fruits and vegetables be exempted from the requirements of section 403 (k) of the Federal Food, Drug, and Cosmetic Act, with respect to added chemical preservatives. These petitions have been supported by a number of growers, grower organizations, and members of the wholesale and retail grocery trade.

Sunkist Growers and the retail grocers who supported that firm's petition furnished evidence from six geographic areas which led them to believe that the declaration of chemical preservative required by section 403 (k) of the act is impracticable with respect to fresh citrus fruit, because:

1. A retail grocer may have at the same time several lots of the same citrus fruit bearing different preservative treatments;

2. The presence of such lots in the retail market may lead to errors in the labeling of bins despite efforts to apply proper labels to the fruit being displayed for sale; and

3. To keep each of the several lots separated and separately labeled in the retail market would result in prohibitive expense because of the increased labor cost and display space required.

From a study of the petitions it is apparent that the difficulty encountered in the proper labeling of citrus fruit treated with chemical preservatives arises principally because section 403 (i) (2) of the act requires the common or usual name of each preservative to be declared on its label.

Section 403 (i) provides that "to the extent that compliance with the requirements of clause (2) of this paragraph is impracticable * * * exemptions shall

be established by regulations promulgated by the Secretary." The data submitted by Sunkist Growers and the grocers who supported the firm's petition indicate that it is desirable to secure further information on the practicability of declaring at time of retail sale the common or usual name of chemical preservative ingredients on citrus displayed in bulk. This notice is being published to obtain additional facts upon which to base a decision.

If adopted, the proposal made below would—

1. Leave citrus fruit in package form subject to section 403 (i) (2) and (k) of the act. Thus, the package would have to bear a label declaring both the presence of any chemical preservative and the common or usual name of the preservative.

2. Exempt citrus fruit displayed in a retail market in bins (or other nonpackage form) from the necessity of bearing a label that names the chemical preservative present in or on the fruit (exempt it from a portion of sec. 403 (i) (2)).

3. Leave such fruit subject to the full requirements of section 403 (k) of the act. Thus, it would still have to bear labeling (such as a legend stamped on the fruit, or a counter card displayed with the fruit) which declared that it bears or contains a chemical preservative.

4. Leave other fruits or vegetables subject to the requirements of section 403 (i) (2) and (k). They would have to bear labeling which declared the name and presence of any chemical preservative present, whether or not in package form, and whether or not offered for retail sale.

The petitions do not furnish reasonable grounds for publishing a proposed exemption that would apply to citrus in package form, to citrus before it is offered for retail sale, or to any other fruit or vegetable, whether or not in package form.

Now, therefore, notice is given that the Commissioner of Food and Drugs, under the authority of the Federal Food, Drug, and Cosmetic Act (secs. 403 (i), 701 (a), 52 Stat. 1048, 1055 as amended; 21 U. S. C. 343 (i), 371 (a)), proposes to amend section 1.10 of the general regulations for the enforcement of the act by adding thereto a new paragraph reading:

"(g) Fresh citrus fruit not in package form shall be exempt while held for retail sale from the requirements of section 403 (i) (2) of the Act with respect to any chemical preservative ingredient present."

Any interested person is invited to submit, within 30 days after publication of this notice in the Federal Register, evidence showing the practicability or impracticability of labeling fresh citrus fruit which has been treated after harvest with a chemical preservative, with the name of each chemical preservative ingredient at time of retail sales. Comments should be submitted in quintuplicate to the hearing clerk, room 5440, Department of Health, Education, and Welfare Building, 330 Independence Avenue SW., Washington 25, D. C.

Dated: March 31, 1958.

GEO. P. LARRICK,
Commissioner of Food and Drugs.

[Published in the Federal Register April 4, 1958]

EXHIBIT C

TITLE 21—FOOD AND DRUGS

CHAPTER I—FOOD AND DRUG ADMINISTRATION DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

SUBCHAPTER A— GENERAL

PART I—REGULATIONS FOR THE ENFORCEMENT OF THE FEDERAL FOOD, DRUG, AND COSMETIC ACT

FINAL ORDER AMENDING DEFINITION OF "CHEMICAL PRESERVATIVE" AND EXEMPTING FRUITS AND VEGETABLES BEARING CHEMICAL PRESERVATIVES APPLIED PRIOR TO HARVEST FROM LABELING REQUIREMENTS

There was published in the FEDERAL REGISTER of July 31, 1957 (22 F. R. 6019), a notice of proposal to amend the definition of the term "chemical preservative" contained in section 1.12 (a) (3) of the regulations for the enforcement of the Federal Food, Drug, and Cosmetic Act (21 CFR 1.12 (a) (3)) and to

exempt from the labeling requirements of section 403 (k) of the act fruits and vegetables with respect to chemical preservatives applied as pesticide chemicals prior to harvest.

The time for filing views and comments on the proposed amendments was extended by notice published in the FEDERAL REGISTER on September 14, 1957 (22 F. R. 7382).

There was no objection to the proposed amendment of the term "chemical preservative."

A number of statements were submitted suggesting that the exemption from the labeling requirements of section 403 (k) be broader than the one proposed. No one suggested that the proposed exemption should not be established.

With respect to a broadening of the proposed exemption, a notice of a proposal to grant certain exemptions from the labeling requirements of section 403 (i) (2) is being published in the FEDERAL REGISTER. This will permit interested persons to comment further on this matter.

After considering the comments that were filed and other relevant and material information, *It is ordered*, pursuant to sections 403 (k) and 701 (a) of the Federal Food, Drug, and Cosmetic Act, That the regulations for the enforcement of the act (21 CFR 1.12) be amended as follows:

1. In section 1.12 Food: labeling; artificial flavoring or coloring, chemical preservatives, paragraph (a) (3) is changed to read:

(a) * * * (3) The term "chemical preservative" means any chemical that, when added to food, tends to prevent or retard deterioration thereof, but does not include common salt, sugars, vinegars, spices or oils extracted from spices, substances added to food by direct exposure thereof to wood smoke, or chemicals applied for their insecticidal or herbicidal properties.

2. Section 1.12 is further amended by adding a new paragraph (f) reading as follows:

(f) A fruit or vegetable shall be exempt from compliance with the requirements of section 403 (k) of the act with respect to a chemical preservative applied to the fruit or vegetable as a pesticide chemical prior to harvest.

Effective date: This order shall become effective 30 days from the date of its publication in the Federal Register.

(Sec. 701, 52 Stat. 1055 as amended, 21 U. S. C. 371. Interpret or apply sec. 403 (k); 52 Stat. 1048, 21 U. S. C. 343 (k)).

Dated: March 31, 1958.

GEO. P. LARRICK,
Commissioner of Food and Drugs.

Mr. BURROWS. I would also like to compliment my colleague, Mr. Rains, on a very fine statement this morning. I concur in his statement most wholeheartedly.

First, there seems to be some confusion relative to how this bill might affect public health and safety. I hasten to assure you that the question of public health and safety is not involved, and the Food and Drug Administration have publicly stated so in correspondence to the fruit and vegetable industry.

The consumer is amply protected by the Miller bill.

This amendment, as you well realize, requires the Secretary to establish safe tolerances for residues of pesticide chemicals in or on the raw agricultural commodity or exempt certain chemicals that have been proven to be so safe as to require no tolerances for residues.

Establishment of tolerances or exemptions are not accomplished on a hit or miss basis. Vast scientific data must be submitted to the Secretary clearly demonstrating that the tolerances or exempions are valid and do adequately protect the public health and safety.

Please note the residue tolerances are established for the chemical in or on the raw agricultural commodity. Therefore, the tolerance covers not only the residue remaining on the outside of the fruit but also the amount of the chemical on the inside, should any be absorbed.

In some instances the pesticide chemical may to a slight extent penetrate the outer surface of the fruit, but certainly a fruit has no

bloodstream in the same manner as human beings. Even so, the residue tolerance covers both the residue outside and inside.

Second, I would like to address your attention to the FDA's proposed partial and ineffective exemption of nonpackaged citrus fruits at retail from the labeling requirements of section 403 (i) (2) which was published in the Register April 4, 1958.

Please note that the proposed exemption pertains to section 403 (i) (2). The word "exemption" is a misnomer. Should the proposal hold, its effect upon fruits and vegetables in general is not to exempt, but to cover them with requirements which are new and astonishing to us.

Section 403 (i) (2) pertains to "fabricated" foods. The language of the section is clear. It states "in case it is fabricated from two or more ingredients" the label shall bear "the common or usual name of each such ingredient" or it will be deemed misbranded.

The presumption and contention of the FDA that fresh fruits and vegetables are "fabricated" foods—fabricated from two or more ingredients—is unreasonable, arbitrary and flaunts congressional authority.

The legislative history is clear that Congress definitely did not consider fresh fruits and vegetables to be "fabricated" foods. Mr. Rains has given you excellent reasons for this statement by citing the definition of the term "raw agricultural commodity" added by the pesticide chemicals amendment and from the report on that amendment.

Further, in the Senate debate on S. 2800, 73d Congress, Senator Copeland in discussing certain language relative to labeling, expressed deep concern over the wording in the bill that the label bear—

> * * * the common or usual name of each ingredient such food bears or contains in the order of predominance by weight * * *.

He was concerned that this wording would require an apple grower to show on his label that an apple contained so much pectin, malic acid, sugar, et cetera.

Therefore, to eliminate any possibility that this applied to raw agricultural commodities the Senators struck out the word "such" and inserted "which any fabricated." The wording then read that the label bear—

> * * * the common or usual name of each ingredient which any fabricated food bears or contains in the order of predominance by weight * * *.

We wonder how the FDA can propose even a partial exemption for one fresh fruit from a section that never applied to fresh fruit and vegetables in general.

The proposed regulation and the new FDA concept that 403 (i) (2) applies to fresh fruits and vegetables alarms us greatly. Should the proposed regulation be adopted, it would mean that fresh fruits and vegetables would be subject to the labeling requirements of sections 403 (i) (2) and (k). The FDA might conceivably interpret this to require that fresh fruits and vegetables bear a label not only to show they had been treated postharvest with a chemical preservative but also that the label bear the common names of all the chemicals, including fertilizers, insecticides, herbicides, and fungicides, that had been used on the crop preharvest and postharvest.

Therefore, we strongly urge quick favorable action on H. R. 9521 and earnestly appeal that the committee in their report clearly and

emphatically declare that fresh fruits and vegetables are not "fabricated" foods and that section 403 (i) (2) is not applicable.

Thank you, Mr. Chairman.

Mr. WILLIAMS. Thank you very much, Mr. Burrows.

Mr. DINGELL?

Mr. DINGELL. No questions.

Mr. WILLIAMS. Mr. Loser?

Mr. LOSER. I would like to ask if FDA specifically held in this regulation that the use of fungicides postharvest is a fabrication of food?

Mr. BURROWS. They maintain that all chemicals added to a food, an apple or an orange, is fabrication. It results in a fabricated food.

Mr. LOSER. In this regulation?

Mr. BURROWS. In the proposed regulation.

Mr. LOSER. The proposed regulation?

Mr. BURROWS. Yes, sir.

Mr. LOSER. Did they specifically state that the use of these chemicals is a fabrication of food?

Mr. BURROWS. No; they do not mention it in that term; no, sir. The exemption, though, is from section 403 (i) (2), which concerns itself and pertains only to fabricated foods. So, therefore, what other conception can you take?

Mr. LOSER. Your construction is that this 403 (i) (2), or whatever it is, deals with fabricated foods?

Mr. BURROWS. It says so.

Mr. LOSER. And does FDA say that this regulation comes from this section of the act? Their authority is predicated upon that section?

Mr. BURROWS. May I read it?

Mr. LOSER. Do not read anything. Just tell me.

Mr. BURROWS. They state that should this proposed regulation or exemption, as they term it, be adopted, then all other fruits and vegetables with the exception of the exemptions that they are putting forth now, and that is nonpackaged citrus at the retail level, would be subject to the labeling requirements under section 403 (i) (2).

So, therefore, 403 (i) (2) says that the label shall bear the common or usual name of any of the ingredients in the fabricated foods. This regulation would hold that the addition of captan, for example, used as a fungicide at the very beginning when the blossom is just coming out, is one of those chemicals that must be named if a residue remains after harvest, even though it was sprayed way back.

Mr. LOSER. That is all.

Mr. WILLIAMS. Thank you very much.

STATEMENT OF JOHN C. DATT, ASSISTANT LEGISLATIVE DIRECTOR, AMERICAN FARM BUREAU FEDERATION

Mr. DATT. I am John Datt, assistant legislative director of the American Farm Bureau Federation.

We have a statement we would be glad to file with the committee.

I would just add that we are vitally interested in this problem, have worked very closely with the group that have been here today during the past several years. We are very much in favor of the legislation and urge that it be enacted.

Mr. WILLIAMS. Thank you very much, Mr. Datt.
(The prepared statement of Mr. Datt follows:)

STATEMENT OF THE AMERICAN FARM BUREAU FEDERATION, SUBMITTED BY JOHN C. DATT, ASSISTANT LEGISLATIVE DIRECTOR

We appreciate the opportunity of presenting the views of the American Farm Bureau Federation on the proposed legislation to exempt fresh fruits and vegetables treated postharvest with pesticide chemicals from labeling requirements of the Food and Drug Administration. The purpose of this legislation is to redefine the term "chemical preservative" so that it would not include any pesticide chemicals when used in or on any raw agricultural commodity which is produce of the soil.

The need for this legislation results from a ruling by the Food and Drug Administration that pesticide chemicals used in the postharvest treatment of fresh fruits and vegetables are chemical preservatives and therefore subject to the labeling requirements of section 403 (k) of the Food, Drug, and Cosmetic Act.

The American Farm Bureau has been quite active in this matter and has worked very closely with the various organizations in the fresh fruit and vegetable industry in attempting to seek a solution to this problem.

Through conferences with the Food and Drug Administration, and finally through administrative action provided under the law, we have sought to work out a satisfactory solution to the problem. Recently, the Food and Drug Administration has suggested a change in its regulations. We find this completely unsatisfactory and have no alternative but to seek a change in the law.

The American Farm Bureau Federation supports the passage of H. R. 9521 for the following reasons:

1. There is no question of safety or health involved because these factors are effectively covered under the so-called Miller amendment to the Federal Food, Drug, and Cosmetic Act passed in 1954. Farm Bureau actively supported this amendment and under it the various pesticide chemicals are cleared for usage by FDA. A residue tolerance, or exemption from tolerance for the safe use of these pesticide chemicals, is established by FDA.

The basic question involved in this legislation is not health or safety but labeling.

Once a pesticide chemical has been cleared, and a residue tolerance established, it does not seem logical to us to require the labeling of a commodity on which the chemical was safely used. We fail to see the necessity for such labeling.

2. From the standpoint of a grower or shipper, it is very impracticable to label the various fresh fruits and vegetables that they may market. Some of the fruits or vegetables may require various pesticide chemical treatments. It is difficult, in fact impossible in the preparation for shipping, to keep track of all the various fungicides that may be used and so label the commodities.

During the shipping and packinghouse procedure not all fruits and vegetables are treated with pesticides. Only these commodities which will benefit by such treatment are subject to it. This means that some lots will be treated and others will not. Because of the setup in a packinghouse, there is often the mixing of treated and untreated lots. To attempt to separate these lots would be very difficult and costly to the growers and shippers of fruits and vegetables.

We are interested in the maximum efficiency possible in the marketing of these commodities, because it means greater returns to producers. The requirement that these commodities be labeled certainly would not contribute to lower marketing costs. Higher marketing costs would neither be of benefit to the producers or consumers.

3. Producers of fruits and vegetables are basically interested in the development of expanded markets for their commodities. They use pesticide chemicals as a means of assuring consumers the best products possible. The use of pesticide chemicals is a necessity in the production and marketing of fruits and vegetables.

Since the labeling requirement has been instituted by FDA, producers have been told by various food retailers that they will refuse to purchase and handle treated produce. This becomes a very real problem in the marketing of these commodities.

If we felt that the labeling requirement served any useful purpose for consumers or retailers, we would have no objection to it. However, we believe it

does not benefit consumers and only serves as a detriment in the marketing of fruits and vegetables.

4. We believe that the FDA position that fungicides are chemical preservatives, within the meaning of section 403 (k) of the act, cannot logically be maintained. The basic purpose of section 403 (k) is to require the declaration of preservatives that are integral parts or ingredients of processed foods. This, until recently, did not include residues of pesticides on fruits and vegetables. The action of a preserving ingredient in processed foods is entirely different from that of a residue on fruits and vegetables.

Just recently FDA has published a regulation that excludes insecticidal residues used in the production of fruits and vegetables from the labeling requirements. We find it very difficult to understand the difference between applying the labeling requirement to fungicides used in the postharvest operation, and exempting insecticides used prior to harvest.

Neither, we feel, are "chemical preservatives" and should not be considered as such.

5. While the labeling requirement is impracticable from the producer and shipper standpoint, it is much more impracticable at the retail level. Retailers receive lots of fruits and vegetables from many different shippers containing a number of different pesticide chemical treatments. In these days of self-service it is impossible to keep these various lots separated. Retailers, in conducting good merchandising practices, are constantly rotating and refilling their produce bins. To see that the proper labeling of treated produce is maintained is virtually an impossible task.

In addition to the proper labeling of treated produce, they must be certain that untreated produce is distinguished as they would be subject to penalties for misbranding if the proper placards are not displayed.

The responsibility of retailers for proper labeling is tremendous and we believe that under our present methods of marketing fruits and vegetables it is impracticable for them to label and serves no useful purpose to consumers.

6. It has been stated that consumers are interested in knowing what pesticide chemicals have been used on fruits and vegetables they purchase. This may be true. However, we are convinced that consumers are interested in knowing and being assured that the produce they purchase is safe and that some pesticide chemical has not been used that will injure their health. They have this assurance of safety and health at the present. This legislation would in no way change that situation.

We believe consumers are interested in obtaining the best fresh fruits and vegetables at the lowest possible cost. Producers are also interested in providing consumers with the best produce at the highest returns possible to them. The present labeling requirement is neither in the best interests of consumers or producers.

For these reasons we support the enactment of H. R. 9521 and urge that you give this legislation your immediate consideration.

We appreciate the opportunity to present our views on this matter.

Mr. WILLIAMS. Mr. Ed Brown Williams.

STATEMENT OF ED BROWN WILLIAMS, UNITED FRESH FRUIT & VEGETABLE ASSOCIATION

Mr. E. B. WILLIAMS. Mr. Chairman, I do not propose to make anything but a very short statement which, if you please, I will make standing. There are only two things I want to comment on.

Mr. WILLIAMS. First, Mr. Williams, will you identify yourself for the record?

Mr. E. B. WILLIAMS. Yes. I represent the same group represented by Mr. Rains and the others who have appeared here this morning.

Mr. WILLIAMS. That is the United Fresh Fruit and Vegetable Association?

Mr. E. B. WILLIAMS. And other groups which are affiliated for the purposes of this legislation, supporting this legislation.

Mr. WILLIAMS. All right, sir.

Mr. E. B. WILLIAMS. There are only two things that I would like to say: One is that the regulation which Mr. Burrows just referred to was not proposed by the Food and Drug Administration until April 4, when it was published in the Federal Register. That was after these hearings had been scheduled. It was for that reason that we took no account of the possibility in the bill which is before you of foods which we are talking about, raw agricultural commodities, specifically fresh fruits and vegetables, would be regarded as fabricated foods. Therefore, we provided for no exemption from 403 (i) (2) under which this regulation is proposed.

In order to cure the situation with which we are faced, if the Food and Drug Administration persists in this interpretation, then we should have to ask either that the bill be amended to take account of this new problem, or that we might suggest that it be done as Mr. Burrows did, in the committee report.

The second thing I would like to say refers to a question raised by Mr. Dingell, whether it would be satisfactory from the retail standpoint if the bill were amended to provide only for an exemption from labeling at the retail level, leaving the regulation effective with regard to the carton or other shipments of the fruit or vegetable.

Mr. Peterson at some length, I believe, showed to you the other day, Monday, that it is impractical in many instances at the shipping point in the packinghouse to separate during the packing operation the various fruits and vegetables which have received different treatments, even those receiving treatments in the packinghouse.

Because of the nature of the operation, a continuous operation on a conveyor belt, it is most difficult.

We wanted to make those two points clear before the hearing was closed.

Mr. WILLIAMS. Thank you very much, Mr. Williams.

Are there any questions of Mr. Williams?

Mr. DINGELL. No questions.

Mr. LOSER. No questions.

Mr. WILLIAMS. Thank you very much.

Mr. Loos (Karl D. Loos, Sunkist Growers, Los Angeles, Calif). Mr. Chairman, I have here a copy of the document that Sunkist filed with the Food and Drug Administration. I would like to leave copies of this with the committee. It is quite voluminous, and you may not wish to put it in the record.

Mr. WILLIAMS. The committee will accept these for the committee files, and for its use. If necessary, the committee will determine later whether to include it in the actual record.

(The document referred to will be found in the files of the committee.)

Mr. WILLIAMS. I believe the remaining witnesses are from the Food and Drug Administration.

I am pleased to have another of our old friends, Dr. Harvey, Deputy Commissioner of the Food and Drug Administration, present. I believe you are accompanied by Mr. Rankin, are you?

Mr. HARVEY. Yes.

STATEMENT OF JOHN L. HARVEY, DEPUTY COMMISSIONER OF FOOD AND DRUGS, FOOD AND DRUG ADMINISTRATION, DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE; ACCOMPANIED BY WINTON B. RANKIN, ASSISTANT TO THE COMMISSIONER, FOOD AND DRUG ADMINISTRATION

Mr. HARVEY. I have a brief prepared statement, Mr. Chairman, that I would like to read. I may wish to add a word or two to the prepared statement and then be available for questioning.

Mr. Chairman and members of the committee, my name is John L. Harvey, I am Deputy Commissioner of the Food and Drug Administration and am appearing in behalf of the Department of Health, Education, and Welfare.

H. R. 9521 would amend the Federal Food, Drug, and Cosmetic Act by adding the sentence: "As used in this paragraph the term 'chemical preservative' shall not include any pesticide chemicals when used in or on any raw agricultural commodity which is the produce of the soil" to section 403 (k) thereof.

At present, section 403 (k) requires, among other things, that if an article bears or contains any chemical preservative it must bear labeling stating that fact, provided that to the extent that compliance with this requirement is impracticable the Secretary may promulgate regulations establishing exemptions.

Another section of the act which is pertinent but not affected by this bill is section 403 (i) (2) which, among other things, requires that the label of a food list the common or usual name of each ingredient from which it is fabricated. That section also has a provision whereby, for reasons of impracticability, the Secretary may promulgate exempting regulations.

Chemicals that help preserve food by retarding growth of mold or bacteria are chemical preservatives within the meaning of the act. When used on raw agricultural commodities they are also pesticide chemicals under the act; thus the net effect of the bill would be to permit the use of chemical preservatives on fresh fruits or vegetables without declaring that fact in their labeling.

I would like to emphasize that the bill as drafted exempts fruits and vegetables from the requirements of section 403 (k) but not of section 403 (i) (2). Thus, if this bill were enacted, the label of the food would still have to bear the name of the chemical preservative—it would simply not be identified as such.

Our Department established a regulation several years ago that permits food handled in bulk, such as many fresh fruits and vegetables, to meet the labeling requirements in 1 of 2 ways: (1) It may be displayed to the purchaser with the labeling of the bulk container plainly in view, or (2) it may be displayed with a counter-card sign or other appropriate device bearing prominently and conspicuously the required information.

Our files contain many examples showing that appropriate counter-cards or signs are being used today to advise consumers that the produce offered for sale has been treated with a chemical preservative.

Last summer evidence was presented to us in support of the contention that it is impracticable to declare on the labeling of fresh fruits and vegetables those pesticide chemicals that had been applied prior to harvest. Accordingly, we issued a proposed regulation which would exempt those commodities from the requirement that they declare preharvest preservatives. There was no opposition to this proposal. However, there were requests to broaden it to include postharvest pesticide chemicals in the exemption.

Mr. WILLIAMS. May I interrupt you before you go further? You say there were requests to broaden it to include postharvest pesticide chemicals in the exemption.

Mr. HARVEY. That is right.

Mr. WILLIAMS. Did those requests come from the growers and the retailers, the people who have testified here?

Mr. HARVEY. Yes, sir. That is to say, Mr. Chairman, in response to the publication we received many comments. None of them commented adversely upon the proposal to exempt preharvest chemical additives. Many of them said we should go further and exempt postharvest in the same way.

The initial reasons given for the extension involved inconveniences and possible sales resistance that might be generated by a declaration on a fresh fruit or vegetable that it bears a preservative. We did not find that the mere inconvenience to packers constituted grounds for impracticability.

We certainly do not accept the proposition that the fact that a consumer might not purchase an article when apprised of the fact that it contains a preservative constitutes valid reason for holding that the listing of this information on the label or labeling of a food is impracticable.

Recently information has been submitted to us which indicates that there may be a degree of impracticability in retail establishments in labeling bins or other nonpackage forms of citrus fruits to show the names of chemical preservatives. Accordingly, a proposal to exempt citrus fruits not in package form while held for sale in retail establishments from the provisions of 403 (i) (2) was published in the Federal Register on April 4, 1958.

This proposal would impose upon the retailer the duty of advising his customers, through adequate labeling, that such citrus fruit is chemically preserved, but would relieve him of the responsibility of stating the common or usual name of each preservative—or the preservatives—used.

We believe that a consumer is entitled to know, and it seems certain that he does want to know, whether the food he eats bears or contains a chemical preservative. This information should be made available to him whenever it is practicable, and to do so does not place an unreasonable burden on industry.

The present law, as I have mentioned, has provisions for granting exemptions based on impracticability and they are being utilized in the interest of the consuming public. Under the proposed amendment the consumer would be denied the information that the fruit or vegetable is chemically preserved on grounds other than impracticability.

The Food and Drug Administration does not stand alone in its view that the consumer has a right to know whether a chemical preservative

is present on food. The Association of Food and Drug Officials of the United States, composed predominantly of State and local officials, adopted a resolution at its annual meeting in Louisville, Ky., last year—May 9, 1957—which stated in part:

Whereas food laws have always required that the presence of chemical preservatives be declared in the labeling of a food, and

Whereas consumers are entitled to know what preservatives are present in their food: Be it

Resolved, That this association oppose any amendment to Federal or State laws or regulations that would relax the requirement that the presence of a chemical preservative in a food be prominently and conspicuously declared in the labeling.

And the Association of Food and Drug Officials of the Southern States adopted a resolution stating essentially the same thing at its meeting in Pensacola, Fla., on April 8–10, 1958.

The requirement of section 403 (k) of the act is an expression of the basic principle of honesty and fair dealing in the interests of consumers that runs through the act. Consumers have a legitimate interest in knowing that a chemical preservative is present on the food they are asked to buy, whether the food be fresh fruits or vegetables, or processed food. Section 403 (k) of the law is not designed to place an impracticable requirement on growers, shippers, or sellers of products since exemptions may be and have been established by regulation in case of impracticability.

The Department recommends against enactment of any legislation which mandatorily denies the consumer the right to know whether a food he eats is chemically preserved.

That, Mr. Chairman and gentlemen, is the end of my prepared statement.

I think it is perhaps desirable that at the risk of repeating what may have been said when I was absent, I might say that we are dealing with two sections of the Food, Drug, and Cosmetic Act here. The proposed legislation, if passed, would relieve shippers and vendors of the requirements that they inform the public that the article is chemically preserved or bears a chemical preservative.

It would not, if passed, excuse the manufacturer or the seller from declaring the name of the ingredient.

I heard some of the testimony this morning, which I think may fairly be said to be to the effect that it was not until some time after April 10, 1958, that it ever occurred to people that section 403 (i) (2) of the law would be applicable here.

In answer to that, I might say that the Food and Drug Administration as early at 1940, which was the first year of the effective application of the act, following its passage in June of 1938, expressed that view. At that time, so far as I have any knowledge, we have never encountered any objections to that view.

There is an opportunity, possibly, for confusion in the wording of the section to which I refer, 403 (i) (2), with this word of "fabricated."

With your indulgence, I would like to read it and see what it says.

SEC. 403. A food shall be deemed to be misbranded—

(i) if it is not subject to the provisions of (g) of this section.

(g) is the section which provides for a specific standard for a food

unless its label bears (1) the common or usual name of the food, if any there be; and (2) in case it is fabricated from two or more ingredients, the common or usual name of each such ingredient.

It seems abundantly clear, to me at least, that the word "fabricated" was used in its ordinary meaning. Anything made from 2 different ingredients shall declare the names of those 2 ingredients on the label.

That has been the interpretation and concept which, so far as I am aware, has never been submitted to judicial determination. I know of no judgment on the matter from a court that I can cite. But it is commonly accepted that the content of foods made up of 2 or more ingredients bear labeling listing those 2 ingredients.

So I differ with the view that 403 (i) (2) is a new idea that the Food and Drug Administration has brought to bear on this question in April of 1958.

As a matter of fact, I can point to labeling involving the use of wraps, fungicidal paper wraps treated with the chemical fungicide as early as 1940 bearing label referring to the presence of the product that is used to preserve fruit.

You heard, I believe on Monday, some testimony with regard to whether or not a chemical added to fresh fruit is a chemical preservative if it is added to prevent rotting or decomposing through mold or other types of fungicidal or bacterial action.

I do not know that it is a question of serious contention, but the function of a chemical preservative in a food product, I think we can take judicial notice, is to prevent spoilage. I believe there is no question of soundness raised that because it is an insecticide it may not be a chemical preservative if germicidal.

I think it has been said that the Food and Drug Administration would agree that neither of these sections, 403 (k) or 403 (i) (2), are public health sections, or, to put it another way, that the whole question of the safety of chemicals added to raw agricultural commodities is dealt with in the Miller amendment. That is true. It is not in contemplation whether this 403 (k) and 403 (i) (2) remain or change; that they will permit the addition of harmful quantities, of harmful preservatives, to fresh fruit or any other food. That is not in contemplation at all.

I might say, however, that the Food, Drug, and Cosmetic Act is in itself a fabricated structure. I think we could bear in mind that the Miller amendment was passed requiring tolerances for chemical preservatives added to raw agricultural commodities with the then existing and presently existing other sections fo the act in mind. That amendment does bear in mind that the safe quantity of the name of the ingredient, the preservative ingredient, and the fact of its being a preservative when added in a safe quantity, would be on the label.

Let me be quite candid. Whether it makes a great deal of difference to the consumer, whether he can interpret a polysyllabic name such as seems to be more effectively spelled and pronounced, certainly it does have a bearing on the whole problem of enforcing the safety provisions of the Miller amendment.

If chemicals are to be added in any number that may be on the approved or sanctioned list, the Food and Drug Administration has a continuing and tramendous responsibility to insure that the quantities of those approved preservatives are kept within the quantities approved. That is, that their tolerances are not exceeded, because it is axiomatic that if a limitation must be imposed to secure safety, then exceeding the limitation will threaten the safety of the public health.

Therefore, there is a material importance from the safety or public health standpoint in having the package accompanied by the information as to the chemical that has been used.

The problem of assorting and of eliminating and running dozens and dozens of different tests of different chemicals is a formidable one. It is a more formidable one when you are dealing with fresh fruits and vegetables which cannot be delayed in reaching the consumer and still be worth anything.

So that I am quite candid in saying that the access to the information as to what the packer has put on there is important to the food and drug inspector in efficiently and effectively and economically doing his job in the protection of public health.

Questions have been raised, and I think I have heard some of them, with regard to whether it is necessary to carry both the name of the chemical and the fact that it is a preservative for the benefit of consumers, particularly in light of the fact that in many instances the consumer, perhaps happily, is not a chemist and does not recognize exactly what chemical is being talked about.

From my experience, from my reading of the mail that comes to my office, I am thoroughly of the opinion that the consumer has a tremendous interest in knowing whether or not the product does have a chemical preservative in it or on it. I am not able to speak for him in great detail with respect to his interpretation of the chemical name.

But the fact is, what this bill seeks is, not necessarily for malicious reasons, to deprive him of the knowledge, to deprive him of the opportunity to select as between the preserved and the nonpreserved.

I, gentlemen, am well satisfied that the consumer has expressed himself very strongly of the view that he is entitled to know, and does want to know, that difference. The idea that if you tell the consumer this parcel bears a preservative and this parcel does not, there seems to be a view that he will invariably select the unpreserved article. There is no question but many of these preservatives have great virtues in stretching the food supply and in preserving longevity, make it available in greater abundance.

There is no question but they are, in the quantities added, harmless.

To assume that with those facts being known that the consumer will invariably express a preference to the natural as against the preserved I think perhaps is not entirely logical. I believe that is all the comment that occurred from such testimony as I was able to listen to, Mr. Chairman.

Mr. WILLIAMS. Thank you very much. Mr. Harvey. You have done a mighty good job of carrying a mighty heavy burden.

I know that you want to be fair in the presentation and in the statement that you prepared and presented to the committee. I assume that you prepared it, or it was prepared for you and you approved it, of course.

The last sentence contains this assertion:

> The Department recommends against enactment of any legislation which mandatorily denies the consumer the right to know whether a food he eats is chemically preserved.

There is nothing in this legislation that issues a mandate to deny the consumer that knowledge; is there?

Mr. HARVEY. I appreciate your bringing that up. If I had had the copy that I had last Monday I would have marked that off. I intended to correct that myself.

I fully agree with you that the passage of this amendment would not prevent a manufacturer or a vendor from putting any truthful labeling information with regard to the product that he wanted. This is quite correct, and I am properly corrected about that.

Mr. WILLIAMS. In the interest of farmers, I thought you wanted to change that.

Mr. HARVEY. I appreciate that.

Mr. WILLIAMS. On page 4 you make the statement also:

> We believe that a consumer is entitled to know—

I will not take issue with that phrase, and you go further:

> and it seems certain that he does want to know, whether the food he eats bears or contains a chemical preservative.

Just what do you base that on, going on the assumption that the safety factor is not in question?

Mr. HARVEY. I base that upon my personal experience in my official position, and the correspondence, sir, that I have had occasion to read since this act was enacted in 1938.

I say in all seriousness that I am convinced that overwhelmingly, when asked or when given an opportunity to volunteer, that the consumer expresses a view that he wants to know what is in his product that he eats.

Let me say this, Mr. Chairman: In certain areas where a standard of identity for foods has been established, and a definition and standard containing the ingredients which are included has been set up, the labeling prescribed for the food has not always required every stock ingredient to be named. That circumstance is a very fruitful source of correspondence every day from consumers. They encounter products that do not list everything they think ought to be listed on the label, but the products nevertheless conform with the standard.

We get a great deal of correspondence on the question why every package does not have everything that is in it, on it. We get that over and over again. We have learned that from our consumer correspondence.

Mr. WILLIAMS. Mr. Harvey, I appreciate, of course, the interest that the Food and Drug Administration has in this matter. However, it is a bit difficult for me to understand how the consuming public would be interested in knowing, for instance, whether a certain fruit was treated with this jawbreaker, or this one over here, or whether it was treated at all, so long as the chemical was perfectly harmless. I think the thing that the housewife is interested in is the safety.

Mr. HARVEY. Sir, that is No. 1.

Mr. WILLIAMS. I frankly think the safety and quality are about all she is interested in, other than the cost, of course, which all of them are interested in.

Getting into this question of the impracticability or the practicability of this labeling. As I understand it, misbranding under this is a criminal offense, is that right?

Mr. HARVEY. Yes, sir.

Mr. LOSER. Under the statute or under the regulation? Excuse me.

Mr. WILLIAMS. Would you answer that?

Mr. HARVEY. Misbranding is a violation of the statute. The statute prohibits misbranding, and a failure to declare the preservative as required by the statute is a criminal offense unless it has been excused under the provisions authorized by the Congress.

Mr. WILLIAMS. As a practical matter, don't the Food and Drug people recognize the impracticability of this labeling in a general store or in a plantation commissary where fruit is sold? One box of apples will come in and it will turn out to be Washington apples treated with one of these jawbreakers. That will be kept on the counter until it is sold. The next box comes in and it is from Florida, and it is treated with an entirely different chemical.

Isn't that putting an unreasonable burden on the proprietor of that little commissary to tell him that if he does not change the label from one of these six-bit words to another dollar word that you are going to put him in the penitentiary?

Mr. HARVEY. Mr. Chairman, I do not want to get all the different functions that I sometimes have to perform mixed up here. Let me say that the situation that you described hypothetically is very, very similar to the situation that Sunkist growers present in their final presentation of a petition on behalf of the citrus industry for relief on the grounds of impracticability and with the very similar circumstances to what you have described.

Mr. WILLIAMS. You know, we still have a few more little general stores, and we have supermarkets.

Mr. HARVEY. That is right.

Here the situation, as you put it, where they may have fruit from many sources may not be merely a speculation, but have a practical aspect that there are likely to be 4 or 5 different chemicals in this case of citrus fruit in the back room.

We did readily agree and arrive at the conclusion that the declaration of each one of those chemicals would be impracticable to bin display. However, we did not arrive at the conclusion that it would be impracticable for the bins to show the distinction between those that were preserved and those that were not preserved with chemicals, because there are only two factors there:

You have one box that is natural, and you have another that is preserved. So that even if there are a half dozen different jawbreaking names that go along with the preserved fruit, you just have two factors to keep separate.

Mr. WILLIAMS. I know I take my children down to the supermarket on occasion, Mr. Harvey. Quite often they want an apple or a banana or something while they are down there. I tell them to go over and get their apple and pick out a good one. What difference does it make to that child whether that apple has been treated with mercapto benzothiazole or whatever it is, or whether it has not been preserved, so long as that is a pretty red apple and it is one that they want to eat? It will not hurt him.

Mr. HARVEY. I do not think it will make any more difference than it would to my children.

Mr. WILLIAMS. What difference would it make to my child's mother?

Mr. HARVEY. Congressman, I think you are in a better position to answer that one.

Mr. WILLIAMS. I think I can tell you that all she is interested in is that it is safe for the child to eat. Will it make him sick or will it not make him sick? I think that is the general attitude of all the housewives in the country. I never heard anyone express any concern over whether this fruit had a preservative on it or whether this fruit didn't. They take a look at the fruit and if it looks pretty and if it is priced right, they usually buy it.

Mr. HARVEY. I have heard differently. That is the reason I am explaining the source of my information.

I do genuinely believe from what people have told us in writing or otherwise that there is a vast concern over whether or not the food is natural or whether it is preserved.

It may well be that in many instances there is a complete indifference. Also, I am satisfied myself that it is true in a great many instances that the public is not indifferent.

Let me say this, if I may, Mr. Chairman: I believe the whole concept of the food and drug laws, the Federal Food, Drug, and Cosmetic Act, does go beyond the adulteration idea. That is, if a food is safe, that is enough. Throughout and as part and parcel of the misbranding portions of the law and of the legislative history of the law, the concept has been (1) that the food must be clean, sound, wholesome, fit to eat; and, (2) that it shall be labeled for exactly what it is.

I think those are the two sides of the act which go along together.

The exempting here and exempting there on a basis of impracticability for good, sound, overweighing reasons I do not think should be quarreled with. But I think the reason should be sufficient to justify distinguishing among the different food commodities that are offered on the market in that regard.

Mr. WILLIAMS. Let me say this: I do not think anyone would quarrel with the excellent job that the Food and Drug Administration has done in protecting the public from dangerous drugs, foods, and in protecting the health of the public. But do you not think that from the point of view of the public interest, which, of course, would be in this case the consumer interest, it would be preferable for the Food and Drug Administration to use its appropriations to protect the public health rather than merely to provide information to the public, which is to say the least, of doubtful value?

Mr. HARVEY. I readily agree, Mr. Chairman, that if you are compelled to make a choice, the public health always comes first. Certainly that is true.

Mr. WILLIAMS. Of course, in this public health is not at stake.

Mr. HARVEY. This is not primarily a public health measure.

Mr. WILLIAMS. That has already been covered by another section of the act which, of course, gives the Food and Drug Administration police power over the use of these chemicals insofar as safety is concerned.

Mr. HARVEY. That is right. Except, as I pointed out, the ease and practicability of enforcement of the public health regulations I believe would be affected by the elimination of the labeled declaration.

Mr. WILLIAMS. Will you repeat that?

(The answer was read by the reporter.)

Mr. WILLIAMS. Was not the labeling requirement placed in the act to enable the consumer to protect himself?

Mr. HARVEY. To make a selection.

Mr. WILLIAMS. Was it to make a selection, or was it to protect himself against inferior or adulterated products?

Mr. HARVEY. No; I do not think that, Mr. Chairman. I do not believe that the act anywhere contemplates that an adulterated product shall be sold merely by saying on the label that it is thus and so. If we had that concept, you could just declare the number of worms in a can of spinach and it would be a legitimate article.

Mr. WILLIAMS. No getting around that, if a man sells an apple that has a worm in it and it is not labeled that this apple has a worm in it, you will send him to the penitentiary.

Mr. HARVEY. I will go back to your idea. I will let the consumer protect himself against that.

Mr. DINGELL. Mr. Harvey, I was very much interested in this piece of legislation. I just wondered how broad this exemption extends. Will it go to coloring? Will it go to preservatives or substances which would conceal or alter the nature of, let us say, a decayed or a dangerous or an improper food.

Mr. HARVEY. You mean this bill?

Mr. DINGELL. Yes.

Mr. HARVEY. The exemption, in my view, so long as the added substance was a chemical preservative, would be absolute, regardless of that fact.

Mr. DINGELL. How about the other sections of the existing food and drug law? Would you have adequate weapons to protect against that if the substance were, let us say, harmful or deleterious or hide the nature of a decayed or spoiled or rotted food or unsanitary food?

Mr. HARVEY. I think those sections of the act would be unaffected by this legislation. I believe, in fact, the addition of a chemical which made the food unsafe would make it an adulterated food under the law, whether or not there was any reference to that chemical on the label or not.

Maybe I am narrowing your question a bit in answering that way.

Mr. DINGELL. What I am trying to do is to find out just how broad is the exemption given.

Mr. HARVEY. I think exemptions given here are as to stating on the label of a product of the soil the fact that a chemical preservative has been added.

Mr. DINGELL. Does it extend to something which would conceal or alter the nature of a decayed or spoiled or rotten or filthy food substance?

Mr. HARVEY. It would extend in the label reference to that substance, but I do not, in all fairness, think that it would legalize the concealment of inferiority or damage by the enactment of this section.

Mr. DINGELL. How about as to coloring?

Mr. HARVEY. It would not have any effect as to color at all.

Mr. DINGELL. Would they still have to declare coloring?

Mr. HARVEY. In my view they would: yes, sir.

Mr. DINGELL. Regardless of whether or not it was always a preservative?

Mr. HARVEY. Yes.

Mr. DINGELL. They would still have to show that it is colored?

Mr. HARVEY. In my view they would, because while the two might be added simultaneously, I do not think that it would change the fact

that an artificial color had been added. This proposal has no reference to artificial coloring.

Mr. DINGELL. Let me go into this business of enforcement. If we eliminate the provision having to do with the display of the nature of the preservative over the food when it is shown in the store, in the bin, but we retain the requirement that the commodity be marked while it is in its package going through interstate commerce, will that be helpful to the Food and Drug Administration in enforcing, let us say, the Miller bill and the other provisions of the food and drug law?

Mr. HARVEY. Very much so, Mr. Dingell.

Mr. DINGELL. Can you tell us how, Mr. Harvey?

Mr. HARVEY. The Food and Drug Administration has the obligation and responsibility under the Miller bill for fixing a tolerance or a limitation of quantity for pesticides that are intended for use on raw agricultural commodities.

Mr. DINGELL. And also approving them before use?

Mr. HARVEY. Approving them before use.

It may exempt from any tolerance if the pesticide is of such innocuous character that any quantity is safe. But if that is not true, and it is not often true, then the Food and Drug Administration must fix a limitation, allow the substance, but it shall not exceed so many parts per million.

Then it has the obligation of insuring that those quantities are not exceeded. There may be a dozen different products, chemicals, used for essentially the same purpose. If the chemical that was used is declared on the package, the determination of the quantity that is there becomes relatively simple.

However, if the entire gamut of a dozen must be searched for and measured or elimated, your enforcement problem is increased by that kind of a ratio.

Mr. DINGELL. By the time that it takes to analyze and then to compute the quantity present; is that right?

Mr. HARVEY. That is right.

Mr. DINGELL. In the meantime, of course, what happens to this fresh fruit?

Mr. HARVEY. Well, it either rots or is sold without benefit of waiting for the completion of the examination, one or the other.

Mr. DINGELL. Would you care to tell us the numbers of inspectors you have available to supervise the whole of the country, not only with regard to the Miller bill but with regard to others?

Mr. RANKIN. It would be around 300 now, I believe.

Mr. HARVEY. It is roughly 300. It may be 308 or 314 or 299.

Mr. DINGELL. Over the whole country?

Mr. HARVEY. That is right.

Mr. DINGELL. Are you able to do an adequate job of supervising each and every store and each and every packing plant with these people?

Mr. HARVEY. No, sir.

Mr. DINGELL. But you do the best you can?

Mr. HARVEY. We do.

Mr. DINGELL. And to carry this out, would you find that it would be helpful for the taxpayers and to yourself to know what is on these commodities as they pass through interstate commerce?

Mr. HARVEY. Indeed, yes.

Mr. DINGELL. Would you care to tell us at this time what of the foods have to be labeled as to contents, starting, let us say, with canned foods? Do canned foods have to be labeled as to contents?

Mr. HARVEY. Yes, sir.

Mr. DINGELL. What additives to canned food have to be mentioned in canned foods?

Mr. HARVEY. First, I will have to put canned foods in two categories, Mr. Dingell.

Some of the canned foods have standards of identity wherein permissible ingredients are specified in the standard or definition. Under some circumstances of that nature, not all of the ingredients are listed on the label.

Mr. DINGELL. Take canned fruits for a start.

Mr. HARVEY. Canned peaches, for example, would fall in a category where not necessarily all ingredients would have to be listed on the label because there is a standard for that.

Mr. DINGELL. You always see "sugar added," do you not, on a can?

Mr. HARVEY. In the case of canned peaches you will see a reference to "heavy syrup," I believe, or "medium syrup" would be the designation.

Mr. DINGELL. And that is sugar basically?

Mr. HARVEY. That is sugar and water.

Mr. DINGELL. And you have a label on the can to show that sugar and water are in the can?

Mr. HARVEY. That is right.

In the case of nonstandardized foods, and there are relatively few that do have a standard of identity for them, then if they are made from two or more ingredients, every ingredient from which they are made must be listed on the label.

Mr. DINGELL. Would you care to comment on ketchup, for example?

Mr. HARVEY. Ketchup is a standardized item.

Mr. DINGELL. Would you care to give us a nonstandardized item?

Mr. HARVEY. Candy, for example.

Mr. DINGELL. You have to label everything present in the candy?

Mr. HARVEY. Yes, sir.

Mr. DINGELL. Everything.

Mr. HARVEY. Yes.

Mr. DINGELL. How about returning to ketchup. Usually you see the contents marked on the label of the bottle of ketchup, do you not? They include sugar, vinegar, salt. tomato juice, whatever it might be, and then a number of other items.

Mr. HARDY. I think usually you do; yes, sir.

Mr. DINGELL. Let us take other foods. You have to label the contents of packaged frozen food, do you?

Mr. HARVEY. Yes, sir.

Mr. DINGELL. Does that include salt and sugar?

Mr. HARVEY. Yes, sir.

Mr. DINGELL. And other additives, too?

Mr. HARVEY. Yes, sir. Citric acid is included if added.

Mr. DINGELL. I did not hear you.

Mr. HARVEY. Citric acid, for example, is a food additive that is not infrequently used in canned or frozen foods. Citric acid tends to

prevent change of color, and it also produces an acid medium which increases the measure of safety.

Mr. DINGELL. Is it a natural substance? Is is not toxic?

Mr. HARVEY. Made in lemons.

Mr. DINGELL. Found in lemons and other citrus fruits?

Mr. HARVEY. Yes.

Mr. DINGELL. It is not toxic?

Mr. HARVEY. Not toxic as ordinarily used.

Mr. DINGELL. How about dried fruits?

Mr. HARVEY. Dried fruits perhaps illustrate the fabrication question here very well. Dried fruits in some instances are perfectly natural, simply dehydrated by sun or other heat. Other dried fruits, in order to prevent the darkening, are preserved by sulphur dioxide.

Mr. DINGELL. Hydrogen sulphide?

Mr. HARVEY. No; that would be the rotten egg smell. I do not think you will get that in the dried fruit.

But sulfur dioxide, yes. It is labeled and declared on the package.

Mr. DINGELL. How about, for example, canned meats?

Mr. HARVEY. With regard to canned meats, precisely the same principle, Mr. Dingell. Canned meats are regulated under the Meat Inspection Act.

Again, in certain particulars, meat may be standardized. A standard for canned corn beef may be set out which may provide exemption for detailed labeling, but the same principle goes.

Mr. DINGELL. I assume, if we pass the bill as it is presently written, we will set up a precedent whereby other food products will come in and say that they ought to be entitled to this same exemption.

Mr. HARVEY. If I were in private practice, that would be the case; yes, sir.

Mr. DINGELL. What about radiological preservation, say the preservation of foods by use of substances which are radioactive? Will that come under the provisions of this bill?

Mr. HARVEY. I believe it would.

Mr. DINGELL. In other words, let us say, if I were in the wholesaling business or in the retailing business, I would be able to treat foods by use of radioactive energy, radiactive rays, and sell it just as fresh food, and never say that it had been so treated, if this bill is passed?

Mr. HARVEY. That is my view; yes, sir.

Mr. DINGELL. Running to this business of marking cases as the fresh fruits and vegetables move through interstate commerce, you told us before that that is helpful to food and drug inspectors.

Mr. HARVEY. Yes, sir.

Mr. DINGELL. Would you care to elaborate any further on that, sir?

Mr. HARVEY. I do not know that I would care to particularly, Mr. Dingell, except to perhaps repeat myself by saying the labeling of foods, generally, when accurately and properly done, merely present to the inspector or the chemist the problem of determining the truth of it and the quantitative aspects.

If what is in the food is unknown, it presents a tremendous problem. Similar to a sophomore problem in chemistry, you have to run it through a standarized series of tests to try to first identify what is there without knowing exactly what it is you are looking for.

Secondly, you put it through a similar process, after identifying what is in there, to determine how much. This is a formidable proposition.

Mr. DINGELL. Would you care to tell us whether or not that would be helpful to the Food and Drug Administration to identify the boxes as they move through interstate commerce?

Mr. HARVEY. Tremendously helpful.

Mr. DINGELL. Will you be helped by this in the enforcement of the Miller Act?

Mr. HARVEY. Yes, sir.

Mr. DINGELL. Does it help you in connection with the enforcement of the other acts which you are charged with?

Mr. HARVEY. Yes, sir.

Mr. DINGELL. I have no further questions.

Mr. WILLIAMS. Mr. Harvey, how many agents would it take to police this regulation properly?

Mr. HARVEY. In all honesty, Mr. Chairman, I do not think that I can answer that very accurately. There is a growing use of post-harvest chemical preservatives or pesticides, if you will, started I believe, in 1953 by some of the research people connected with the citrus industry who produced certain chemicals that are very helpful in keeping down mold on oranges and other citrus fruit.

There has been the development of "stop mold" products in apples and pears, and particularly, I believe, with regard to pears that is apparently much on the increase.

The use of various chemical treatments of fresh vegetables is quite new. To try to estimate your workload of it would have to be based upon how much of it is used, based upon the effectiveness of the controls carried on in the plants, quantities that they use, tolerances that exist.

That is to say, if an additive is fairly innocuous, a generous tolerance in relation to the effect of quantity is allowed, and it requires less enforcement activity than if you have one that you can only allow very little on and one that you have to be sure is kept in line.

So it would be very difficult to say. I can say that the added man-hours per job will be increased if we do not have the label information. It will decrease in all products if they are definitely labeled because ordinarily, unless we have suspicions as to the accuracy of the label, we would be limited to determining how much of the particular additive is there.

Mr. WILLIAMS. Mr. Harvey, you would agree with me, of course, that no law is better than its enforcement.

Mr. HARVEY. You are quite right.

Mr. WILLIAMS. And if this present law or regulation, as the case may be, were to be enforced to the letter, and if a conviction were obtained in the case of every violation, we would need a penitentiary, at least the size of the State of Texas to hold everybody; wouldn't we?

Mr. HARVEY. I think that is pretty accurate.

Mr. WILLIAMS. I have a letter here which perhaps should go in the record. It is from Mr. Frank W. Castiglione.

Mr. HARVEY. I know the gentleman.

Mr. WILLIAMS. Executive vice president of Western Growers Association. He poses a question to the Food and Drug Administration in here which I think would be fair to pose to you.

Incidentally, I will insert the whole letter in the record.

He says:

Last year there was considerable correspondence between this office and the Food and Drug Administration in Washington, D. C. Senators and Congressmen of Arizona and California also participated in the controversy in behalf of melon growers in this western territory.

You may recall that correspondence.

Mr. HARVEY. I do indeed; yes, sir.

Mr. WILLIAMS (reading):

The specific commodity involved was cantaloups. The Food and Drug Administration at first requested that each individual cantaloup be affixed with a card or a sticker stating that this melon had been treated with sodium dimethyldithiocarbamate. It was pointed out that due to the coarse and rough texture of a melon this word could not be printed on the melon, and to affix a sticker would call for an enormous expenditure of time and money. The purpose of this treatment was to provide greater carrying qualities of the melon in its long trip from the west coast to destination. Incidentally, most of the melons from California and Arizona are shipped to the east coast, a distance of approximately 3,000 miles. The application of this preservative is merely another attempt on the part of the farmer to get his product to the consumer in the best possible condition. It is in the same category as the bunker ice which is used to keep the cantaloups at the proper temperature, the car strips which are used to keep the individual crates from sliding around the car in transit. All these things are used to prevent bruising and decay and put the melon on the consumer's table in the best possible condition.

After considerable correspondence, the Food and Drug Administration altered its position to the extent that the individual melons would not have to be marked, but a card must be enclosed with each crate of cantaloups and this card must be displayed by the retailer under penalty of law.

A cantaloup crate is made with solid end and slats on all four sides. The purpose for the slats is to permit circulation of refrigerated air during transit. There was no guarantee that the card when inserted in the crate would reach its destination as it could very easily fall between the slats. Without the card the retailer was in violation of Federal law. Is it any wonder that some of the major chainstores refuse to accept melons which were treated with this preservative. The major chains dominate the distribution of fresh vegetables and melons through their enormous buying power. Their refusal to accept the treated melons because of fear of penalties which might occur from failure of store employees in posting the cards forced most of the growers to stop using the harmless preservative. This in turn increased decay in transit, spoilage was greater, and the loss to the farmer was increased considerably. The consumer paid more per melon because of the decreased supply.

It was quickly found that stores which displayed this card had a reduced sale of melons.

Then he says:

This obviously is due to the fact that most housewives do not know how to even spell or pronounce sodium dimethyldithiocarbamate, much less know what it means. The instinctive reaction is to avoid a product bearing a substance with such a formidable name.

We have one more question which the Food and Drug Administration has been unable to answer. This question is this: "Where and when is the rind of a cantaloup consumed by human beings?"

Would you like to try to answer that question, Mr. Harvey?

Mr. HARVEY. I do not know whether I can answer that or not.

Let me say that in the beginning, at the insistence that the labeling required by law appear on each cantaloup, the situation arose with cantaloups that already had a sticker label on them, which

is a very common practice. The rind of the cantaloup is no rougher for that sticker than it is for a sticker that has this horrible name on it. So long as there is a label applied to each individual cantaloup it was suggested that that label might be employed to carry the information that the law required.

Mr. DINGELL. Mr. Harvey, are you telling us that cantaloups now bear stickers as they travel through the different States?

Mr. HARVEY. Many of them do, Mr. Congressman.

Mr. WILLIAMS. I will hand the letter from Mr. Castiglione to the reporter.

(The letter follows:)

WESTERN GROWERS ASSOCIATION,
Los Angeles, Calif., April 21, 1958.

Re Haley bill, H. R. 9521.
Hon. JOHN BELL WILLIAMS,
Chairman, Subcommittee on Health and Science,
House Interstate and Foreign Commerce Committee,
Washington, D. C.

DEAR SIR: The Western Growers Association represents the vegetable and melon shippers of California and Arizona. Our members ship nearly 40 percent of all the fresh produce consumed in the United States with an annual volume of 200,000 carlot shipments with a value of an excess of $500 million. We fully endorse the Haley bill, H. R. 9521, and recommend its adoption.

The general position of the association will be stated by Mr. J. Harden Peterson, who will appear as arepresentative of the fresh fruit and vegetable industry of the United States. Mr. Peterson will represent this association as well as other groups. The purpose of this letter is to express our specific viewpoints on an individual problem.

Last year there was considerable correspondence between this office and the Food and Drug Administration in Washington, D. C. Senators and Congressmen of Arizona and California also participated in the controversy in behalf of melon growers in this western territory. The specific commodity involved was cantaloups. The Food and Drug Administration at first requested that each individual cantaloup be affixed with a card or a sticker stating that this melon had been treated with sodium dimethyldithiocarbamate. It was pointed out that due to the coarse and rough texture of a melon this word could not be printed on the melon, and to affix a sticker would call for an enormous expenditure of time and money. The purpose of this treatment was to provide greater carrying qualities of the melon in its long trip from the west coast to destination. Incidentally, most of the melons from California and Arizona are shipped to the east coast, a distance of approximately 3,000 miles. The application of this preservative is merely another attempt on the part of the farmer to get his product to the consumer in the best possible condition. It is in the same category as the bunker ice which is used to keep the cantaloups at the proper temperature, the car strips which are used to keep the individual crates from sliding around the car in transit. All these things are used to prevent bruising and decay and put the melon on the consumer's table in the best possible condition.

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It was quickly found that stores which displayed this card had a reduced sale of melons. This obviously is due to the fact that most housewives do not know how to even spell or pronounce sodium dimethyldithiocarbamate, much less know what it means. The instinctive reaction is to avoid a product bearing a substance with such a formidable name.

We have one more question which the Food and Drug Administration has been unable to answer. This question is this: "Where and when is the rind of a cantaloup consumed by human beings?" Last year's controversy concerning the preservative on the rind of a cantaloup was arbitrary, expensive, and concerned only the portion of a cantaloup which is discarded.

Here is another way of looking at the situation. H. R. 7125, which became Public Law 518, commonly called the Miller bill, established a procedure for fixing tolerances and regulating the use of pesticide chemicals. Its sole purpose was to assure safety in the use of those chemicals for the protection of the public. This association actively supported the Miller bill, in fact, it contributed materially toward expenses of a research chemist who worked with Federal bureaus in establishing those tolerances. The Miller bill provides tolerances in the use of pesticide chemicals. By this we mean that it has established that a certain amount of a residue of a certain chemical is not injurious to a human being. These conclusions were only drawn after exhaustive tests. Present regulation by the Food and Drug Administration does not recognize those tolerances as established under the Miller bill. The Haley bill, on which you are holding hearings, will merely request the Food and Drug Administration to abide by those tolerances set forth in the Miller bill.

Our experience last year in attempting to have the illogical and unnecessary restriction removed from cantaloups demonstrates that relief cannot be obtained through administrative bureaus. Legislation which clearly states the intention of Congress seemingly is the only way the farmer can obtain any relief. It is a sad commentary that busy men such as yourself must take time off from their legislative duties to clearly enact a law to cover situations which should and could be resolved by a practical, realistic approach on the part of the governmental bureau.

Yours very truly,

FRANK W. CASTIGLIONE,
Executive Vice President.

Mr. DINGELL. They do?

Mr. HARVEY. That was the reason for calling attention to the apparent practicability. If you can extol the virtues of the cantaloup by putting a sticker on there, you presumably could also carry information that the law requires on a sticker.

Mr. WILLIAMS. However, in that case, one promotes the sales and the other discourages sales; does it not?

Mr. HARVEY. I am not prepared to accept the second conclusion. I do not know. It has been asserted that it discourages sales on the premise that it is something bad, that it makes the cantaloup worse than it would otherwise be. I do not think that is a fact. I cannot say that it does discourage sales.

Certainly the purpose of the sticker with a brand name and so forth initially was to identify a superior product. I can understand the objection to adding the name of the chemical and the fact that it is chemically preserved. I think cantaloups, not necessarily all of them, did already bear an individual label.

Mr. WILLIAMS. Is it not a fact, though, that those labels were not applied to each and every melon in the box, but rather those that could be reached conveniently through the slats?

Mr. HARVEY. No; I am not aware of that. I do not deny that that may be true, but I did not understand that that was the case.

Mr. WILLIAMS. If that is true, then the ones that were not stamped or labeled would be misbranded; it that not right?

Mr. HARVEY. Not if the crate were properly labeled on the end. There is no requirement that every cantaloup has to be individually labeled. We did not intend to have any such requirement. Merely the fact that they were labeled, we pointed out, provided some place for them to be labeled. But we said alternately, if the crate is properly labeled and if a bin card is provided, that will meet the requirements of the act.

At the same time, or in the course of the correspondence, we undertook to be helpful by pointing out the opportunity for presenting evidence to the impracticability on a factual basis and consideration by the Secretary to seek exemptions.

Mr. WILLIAMS. I would like to ask a hypothetical question, Mr. Harvey, and I do not think that this is any more farfetched than the example of the cantaloups that was brought up in this letter a minute ago.

The question there was asked whether people eat the rinds of cantaloups.

What about the case of the restaurants which serve fresh orange juice? Carrying this principle that apparently has been accepted by the Food and Drug Administration as being in the interests of informing the consumer completely, to the ultimate, would it not also be proper to require that restaurants, in serving fresh orange juice, state on their menus that the orange juice served is taken from oranges treated with one of these 25-letter words?

Mr. HARVEY. We have not so viewed it, Mr. Chairman.

The processing of oranges for serving at the table in a restaurant, in my view, would be like cooking a meal or any other table processing.

Whether or not there is a requirement with respect to label decoration there, would be, I think, entirely a State or local matter.

The Congress has, however, made precise provision in the Oleomargarine Act as Federal law for both intrastate and interstate oleomargarine and does require that the restaurant wall or menu carry information that oleomargarine is served.

Mr. WILLIAMS. By the same token, it is the desire of the Food and Drug Administration to inform the public completely about what they are buying in the case of watermelon, for instance, would it not also be fair to require that the seller of watermelons indicate what type of fertilizer was used in growing that watermelon?

As you know, and you recall from that question that came up here in our additive hearings, different fertilizers bring about different chemical reactions inside watermelons with the result that watermelons treated, for instance, with natural fertilizer taste quite different from those treated with chemical fertilizers.

Carrying this to the ultimate extreme, letting the public know exactly and completely what they are buying, should that information also be included?

Mr. HARVEY. Possibly, Mr. Williams, but the law does have at the present time, the condition of impracticability. I am satisfied that it would be sound to say in declaring the type of fertilizers used it would be impractical.

Mr. WILLIAMS. Not any more so than for the farmer to declare what type of preservative he is using.

Mr. HARVEY. If the farmer or the packer places a preservative on the article at the time of the packing, when he is packaging and labeling his product, I think it is a somewhat different condition from going back to the individual farmer and evaluating the fertilizers that he puts on the soil. I think there is a difference there. I think the features of impracticability are there.

I think in all seriousness that the fertilizer situation would be comparable to the preharvest spraying for insects, which has already been conceded as impractical for the packinghouse to label in information as to the preharvest insecticides used on the foods.

Mr. WILLIAMS. Then, to that extent, the consuming public really does not know what it is getting, even though it is labeled with these postharvest chemicals; does it?

Mr. HARVEY. That is right; yes, sir.

Mr. WILLIAMS. As I understand it, Mr. Harvey, section 403D (2) of the Food, Drug and Cosmetic Act, under which these fruits have been determined to be fabricated, have a proviso in there, that unless standards of identity have been established—is that not correct, Mr. Harvey?

Mr. HARVEY. Yes, sir.

Mr. WILLIAMS. For fresh fruits and vegetables——

Mr. HARVEY. No, sir. The statute providing for the establishment of standards of identity provide that no definition in the standards of identity and no standard of quality shall be established for fresh or dried fruits or fresh or dried vegetables.

Mr. WILLIAMS. Does not this section say that unless such standards have been established, then the use of these chemicals and so forth shall be considered as fabrication?

I am wondering how, with that qualifying clause in there, the Food and Drug Administration brings this under the statute.

Mr. HARVEY. Section 403 (i) (2) says, "If it is not subject to the provisions of paragraph (g)." Paragraph (g) says that a food shall be deemed to be misbranded "if it purports to be or is represented as a food for which a definition and standard of identity has been prescribed by regulations."

403 (i) (2) says that if such has been done, if a standard of identity has been established for the fruit, then the requirement that "(1) the common or usual name of the food, if any there be, and (2) in case it is fabricated from two or more ingredients, the common or usual name of each such ingredient" when it is fabricated does not apply.

So if it is a standardized food, it is subject to the labeling set forth in that standard.

Mr. WILLIAMS. That is something new to be brought up to date. I think perhaps the committee will have to pull the law and give it considerable study in executive session when we get into that.

Do you have any more questions?

Mr. DINGELL. Yes, Mr. Chairman. I was just wondering about these cantaloups and oranges and so forth. They go through the interstate commerce in generally a similar crate; am I correct?

Mr. HARVEY. Yes.

Mr. DINGELL. Solid end, slatted sides?

Mr. HARVEY. That is right, generally.

Mr. DINGELL. These crates bear various stamps and markings and so forth that are put on it by the processors; do they not?

Mr. HARVEY. Ordinarily both a paper label and a rubber stamp specifically.

Mr. DINGELL. The paper label on the end gives the name of the processor and where he is and so forth and the time?

Mr. HARVEY. And says it is the finest.

Mr. DINGELL. And says it is the finest.

They do not have the trouble of putting the sticker on saying it is the finest; do they?

Mr. HARVEY. That is right.

Mr. DINGELL. And I assume there are gradings that say "U. S. 1" or "Grade A" that they put on the crates?

Mr. HARVEY. That is correct.

Mr. DINGELL. They never have any difficulty getting them on; do they?

Mr. HARVEY. Not to my knowledge.

Mr. DINGELL. Let me ask you this: I borrowed the chairman's list of jawbreakers here.

Mr. WILLIAMS. It is not my list. It was presented by a witness yesterday. I assume they are authentic.

Mr. DINGELL. Let me say I got them from the chairman.

There are a number of them here. Biphenyl and 2,4-dichlorophenoxacetate. I assume you are familiar with those; are you not?

Mr. HARVEY. I do not want to go too far.

Mr. DINGELL. I would be fair in saying that both are toxic in excess of the most minute quantities?

Mr. HARVEY. In excess of certain predeterminated quantities; yes.

Mr. WILLIAMS. To a certain extent, common table salt can be toxic.

Mr. HARVEY. Anything can be toxic if you take enough.

Mr. DINGELL. These are much less than in the case of salt or sugar?

Mr. HARVEY. Yes.

Mr. DINGELL. Mercapto benzothiazole. That is also toxic, am I correct, in quite minute quantities?

Mr. HARVEY. Yes.

Mr. DINGELL. We have another substance here, sodium dehydroacetate. I assume that is also toxic?

Mr. HARVEY. There is a tolerance for that.

Mr. DINGELL. But a tolerance of a very low order?

Mr. HARVEY. That is right.

Mr. DINGELL. I have another one here. Sodium ophenylphenate.

Mr. HARVEY. Yes, sir.

Mr. DINGELL. That is also toxic in a very minute amount?

Mr. HARVEY. Yes, sir.

Mr. DINGELL. You have a very low tolerance for the substance, too; am I right, sir?

Mr. HARVEY. It is low relatively, yes; a very small quantity as we normally view such matters.

Mr. WILLIAMS. How much would that be, Mr. Harvey? You are an expert in this field now. We are expecting the housewife to know this, you see. I want to be sure that this would mean something to the housewife. It would certainly mean something to a man who is certainly well schooled in this field.

Mr. HARVEY. The tolerance is 10 parts per million.

Mr. DINGELL. Tetraiodeothleye. That is also toxic in a very low quantity?

Mr. HARVEY. Yes, sir.

Mr. DINGELL. I am not even going to try this one. [Holding up card reading: "2(p-tert-butylphenoxy)-1-methylethyl-2-chloroethyl sulfite".] It is toxic too, but in a very low amount; right?

Mr. HARVEY. Yes.

Mr. DINGELL. So there is a real good reason why you should have the utmost tools at your disposal to not only know what are in these substances—and I am referring to the Food and Drug Administration—for the enforcement of the Miller Act and for the safeguarding of the people, but also so that you can carry out your legitimate supervision over the amounts and the manner in which the substances are used. Am I correct ?

Mr. HARVEY. Exactly, Mr. Dingell.

If the scheme is to allow these toxic substances in a safe limitation, then the scheme must also include methods to insure that limitation is observed. We have got to have means of checking on that.

Mr. DINGELL. So while the housewife might not know what the substances are, or tolerances, the Food and Drug Administration is charged with the specific responsibility for knowing their toxic qualities and enforcing adequate safety standards?

Mr. HARVEY. That is right.

Mr. DINGELL. And also seeing that the substances are not present in amounts in excess of the quantity permitted or in the manner permitted, or according to the usually approved manner of use? Am I correct?

Mr. HARVEY. That is right.

Mr. DINGELL. Would you have any other comment on the point we have just been discussing, sir?

Mr. HARVEY. I have one that Mr. Rankin has just called my attention to.

Mr. DINGELL. I would be more than pleased to hear it, sir.

Mr. HARVEY. The last chemical named on the last card that you presented does have a very low tolerance, and we have just published a public notice indicating that that tolerance will be reduced to zero.

Mr. DINGELL. This is very interesting. Then, for the purposes of the record, the substance that you are referring to is 2(p-tert-butylphenoxy)-1-methylethyl-2-chloroethyl sulfite; is that right?

Mr. HARVEY. That is correct; but it has a common or usual name.

Mr. DINGELL. What is that?

Mr. HARVEY. Aramite.

Mr. DINGELL. Which is a little bit shorter.

Will you tell us why you reduced the allowance on that to zero?

Mr. HARVEY. The product has been used as a miticide. In studies that were presented 2 years ago, they indicated that, if allowable at all, it has to be an extremely low tolerance. There was appointed a committee of experts, an ad hoc has committee of people who were nominated by the Director of the National Academy of Sciences and appointed by the Secretary which is pursuant to the terms of the Miller amendment.

This committee of distinguished scientists considered all of the data that was available and that had been submitted and recommended that

a tolerance of twenty-five hundredths part per million be allowed on certain crops and certain prescribed conditions.

The committee recommended that the further studies should be carried out during the next 2 years by the manufacturers. At the end of that time at the end of those studies, that the result of those studies should be appraised.

All of that has been done. As a result of those studies, the Food and Drug Administration has concluded that the tolerance should be zero rather than one part per million.

Mr. DINGELL. Why did they do that? I assume it is toxic in human beings.

Mr. HARVEY. It is toxic to human beings.

Mr. DINGELL. In what way?

Mr. HARVEY. Its latent effects are uncertain with respect to malignant growth in animals.

Mr. DINGELL. Apparently it has carcinogenic properties, or in plain language is a cancer producer.

Mr. HARVEY. It is suspicious.

Mr. DINGELL. Extremely suspicious?

Mr. HARVEY. Yes.

Dr. DINGELL. Extremely so as to dissatisfy a panel of scientists set up under the terms of the Miller Act as to its safety to humans?

Mr. HARVEY. That is right.

Mr. DINGELL. How are you going to stop this substance from going through interstate commerce with the extremely limited force of people that you have if you are not able to look at the label and the end of the box and know what is in the box?

Mr. HARVEY. Again, as you pointed out earlier, we can only do our best.

Mr. WILLIAMS. What are you going to do about what is already on the grocer's shelf?

Mr. HARVEY. When the zero tolerance becomes effective, you mean?

Mr. WILLIAMS. I would say if it is that dangerous, then it certainly should not be permitted to be sold; should it?

Mr. HARVEY. It will become effective upon publication.

Mr. WILLIAMS. That does not hurt the fellow who eats it before the date it becomes effective? Is that the position that the Food and Drug Administration people take?

Mr. HARVEY. Not quite right. I think law-enforcement officials have to have respect for the law itself, so we cannot be ex post facto ourselves.

Mr. DINGELL. Would I be fair in saying that you are proceeding with all legal haste to prevent this substance from the market? Would that be a fair statement?

Mr. HARVEY. That is right.

Mr. WILLIAMS. Mr. Harvey, I think you have just admitted to Mr. Dingell that the real purpose of this regulation is not for the protection of the public, the information of the consumer, but rather for the convenience of the food and drug inspectors, is it not?

Mr. HARVEY. I would not agree precisely with that, Mr. Chairman. I said in the beginning in all candor I wish to point out that feature. That is, in my view, the public health aspect of the question presented by the proposal.

Mr. WILLIAMS. In what way now, Mr. Harvey? You have already controlled them with regard to safety, have you not?

Mr. HARVEY. We have issued a regulation which is a guide to the person who puts it on there as to the limitation that has been imposed. But we still have the job of enforcing that regulation.

Knowing what is on there facilitates measuring it tremendously, and it makes a tremendous practical difference.

Mr. WILLIAMS. For the food and drug inspector who exists and works solely for the benefit of the consumer?

Once again I ask: How is it in the public interest for the housewife to know whether a fruit has been treated with either of these harmless chemicals that are harmless in the proportion used in their treatment already controlled by the Food and Drug Administration—tetraiodoethleye and sodium O-phenylphenate—how is that in the public interest not to post this information? How would it be against the interest of the housewife or the public interest?

Mr. HARVEY. Only if she wants to know.

Mr. WILLIAMS. This question is not asked facetiously, but on that basis, it then becomes a function of the Government to satisfy the curiosity of the citizens of the United States wherein it serves no function whatsoever other than the satisfaction of curiosity?

Mr. HARVEY. I would not describe it entirely as satisfying a curiosity. Let me see if I can think of an illustration.

I hope I do not get in the newspapers offensively for saying this, but some people do not care for cod fish for no particular reason, because if it is sold to them as hake or something else they do not know it. But they do have that prejudice, unfounded though it may be.

The question is, are they entitled to be deceived or misled as to what they buy, whether or not it is going to make any difference or whether or not they can tell any difference or whether one is just as wholesome as another. The point that I had in mind was that it is the principle of this whole statute that the consumer shall be informed unless there are good reasons for not doing so.

This is consistent with the whole principle.

I am perfectly willing to concede that the average housewife would not recognize that last one, aramite. I might point out that I did not.

Mr. WILLIAMS. Even if you told me it was there, I still would not know what you were talking about.

Mr. HARVEY. My colleague is a better chemist than I am, so he told me.

Mr. WILLIAMS. Of course, the fact remains that if they bought the product and they did not like it, they would not buy it any more.

Mr. HARVEY. I do not want to seem to pick that up.

Mr. WILLIAMS. The product has to sell itself anyway, does it not?

Mr. HARVEY. He ought to be in the position to know that it was the same product the next time, and he would not if he did not have the label to tell him. So he might buy it over and over and over again and be disappointed each time.

Mr. WILLIAMS. With regard to the impracticability of doing this labeling, let us take the case of the merchant who wants to follow the law to the letter. He is conscientious. He understands what the law

is. He would die before he would violate the law, figuratively speaking.

He has a bin of oranges on display and for sale. That bin has a label up there that those oranges have been treated with sodium dehydroacetate.

A new crate of oranges comes in after he has sold his bin of oranges, and those oranges are treated with mercapto benzothiazole. So in order to comply with the law, he takes the label down from the bin that has just been exhausted. He reaches down and picks the one up from the orange crate that has just come with the different chemical on it, and somehow he happens to drop both labels, and both of them fall on the floor and they get mixed up.

He does not know which label came with which box of oranges. What is he expected to do? Is he expected to take those oranges out and destroy them?

Mr. HARVEY. I do not think so, Mr. Chairman.

I think I am quoting the Supreme Court, but there is a doctrine of the good sense of the prosecutor that goes with any remedial law of this kind. I do not believe that there is any real likelihood that trivalities of that kind are likely to bring that grocer into the penitentiary.

Mr. WILLIAMS. In order to be in technical compliance with the law and in the absence of having any opportunity to have a laboratory analysis made, what would he be expected to do to be in technical compliance? Take those oranges and dump them in the river?

Mr. HARVEY. Let me say, Mr. Chairman, if those boxes are properly labeled, he still has the box. He can sort out the card to match what is in the box.

Mr. WILLIAMS. The only requriement is, as I understand it, that they be identified. There is no requirement that the box itself be labeled, is there?

Mr. HARVEY. Oh, yes. It is food in package form which requires a label on the container. All require a label on the container.

Mr. WILLIAMS. Let us assume that the box has been taken out and burned up. What will he do when he has no way himself to determine the type of treatment that is on these oranges?

Mr. HARVEY. I expect he will go ahead and sell the fruit without any card.

Mr. WILLIAMS. You know as well as I do that no jury in the United States would convict him.

Mr. HARVEY. And I know I would never take it to the jury.

Mr. WILLIAMS. Do you think, Mr. Harvey, that your attorney would take any of these cases to the jury? I have had a little practical experience. It must be an intention to violate the law, before that can be a violation, as I understand the criminal law.

Mr. HARVEY. Not under this statute.

Mr. WILLIAMS. It must be an overt act, not under the present Supreme Court ruling, but under the law.

Is it not necessary to establish criminal intent before a crime can be established?

Mr. HARVEY. This is a type of mala prohibita. Of course, in defending, you always try to take that position, but you are not always successful.

Mr. WILLIAMS. I guess I was a jackleg lawyer in my day and time. I never did know too much about it. I could not think of a finer case to have to defend than one of these misbranding or mislabeling cases under this regulation. I dare say that there is not a jury in the United States that would convict anybody and send them to the penitentiary for failure to put one of those notices up on his wall when it is admitted that it is a completely harmless substance and the safety has already been established.

Mr. HARVEY. May I say this, Mr. Chairman? The Food and Drug Administration has already published a proposal to exempt oranges, citrus fruit in the grocers' bins from carrying these long names because we are satisfied that the citrus industry has made a satisfactory showing, a satisfactory record, that it is impracticable under the circumstances that they have outlined factually.

I feel prepared to further say that the Department will entertain seriously any of the petitions from any group or segment of the whole fruit and vegetable industry with factual information that can be applied to the principle of practicability under this act.

As it is written now, we cannot undertake, I believe, fairly the burden of developing the evidence in each instance ourselves. Nor do I believe that the Department can, in all reason in the exercise of that function, that the position that if it be shown with respect to oranges that is automatically shown with respect to cantaloups, unless the circumstances are shown to be the same.

I certainly would agree that if the circumstances are shown to be the same, then the department's action must be the same.

Mr. WILLIAMS. Mr. Dingell, do you have any further questions?

Mr. DINGELL. Just one brief question.

Running to the subject of aramite, how are you going to get it out of the channels of trade in the fastest, most expeditious way, in the crates and so forth which bear this treated food, which are not plainly marked?

Mr. HARVEY. We will simply have to search for it. We would expect to get cooperation from the distributors, the manufacturers, and so forth, and get information as to where it was used.

Mr. DINGELL. You have a pretty good working relationship with most people in the food industry, do you not, sir?

Mr. HARVEY. We have, yes, sir; but the process will still be slowed unless you have the labels on the crates.

Mr. DINGELL. Is not this problem of convenience of food and drug inspectors really just simply a question of the convenience and the safety of the people of the United States really?

Mr. HARVEY. It is the same thing. I certainly would not bring it up as a point at all unless I felt that it had a genuine relationship to consumer protection. But I thought in fairness I should mention that point.

Mr. DINGELL. Thank you very much, Mr. Chairman.

Mr. WILLIAMS. I have but one more question, Mr. Harvey.

Is the practicability test now in the law the proper test, or should the test be whether the information is necessary to protect the public health, pocketbook of the consumers, to make law enforcement in this respect, easier?

Mr. HARVEY. You are giving me a pretty tough question.

Mr. WILLIAMS. I had a little difficulty in reading it myself.

Mr. HARVEY. I think, Mr. Chairman, we have to keep in mind that insofar as it is possible to do so, that the pattern of the requirements with respect to all foods should be kept uniform. The practicability seems to me to be a pretty fair reason.

Now I am also prepared to agree without argument, that if there is no reason for a rule, no reason at all, that mere conformity to a pattern does not supply the reason.

Mr. WILLIAMS. The term "practicability" is a rather flexible term. It is not an arbitrary or rigid term, is it?

Mr. HARVEY. I agree. It is not an easy yardstick to apply, but whether it is a wholly improper one, I am not prepared to say. I think there is a reason for that rule.

Mr. WILLIAMS. There are no more questions.

Mr. Harvey, the committee appreciates your being so frank and candid with us in this respect, and we think that you have made a splendid presentation from the point of view of the Food and Drug Administration, which of course, is your duty in coming here.

Mr. HARVEY. Entirely correct, Mr. Chairman.

Thank you.

Mr. WILLIAMS. The next witness is the Honorable Paul G. Rogers, Member of Congress. Mr. Rogers, we will be glad to hear you.

STATEMENT OF HON. PAUL G. ROGERS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF FLORIDA

Mr. ROGERS. Mr. Chairman, and members of the subcommittee, thank you for this opportunity to express my views in favor of H. R. 9521.

This bill is necessary to provide relief to the fresh fruit and vegetable industry, to the retail trade handling fresh produce, and to the consumers, since the Food and Drug Administration has ruled that fresh produce bearing residues of certain pesticides applied after harvest must be labeled to state that a chemical preservative is present and the name of the chemical used.

These pesticides are used because they have been found to be extremely effective in reducing the serious losses of perishable raw agricultural commodities from decay and insect infestation. Their use in this regard is widely recognized, and the matter of the safety of the use of these chemicals is in no way involved in this problem.

The Food and Drug Administration ruling is impracticable at best, and would force many retail stores throughout the country to refuse to accept treated produce. The result can only be the discouragement of the use of fresh fruits and vegetables.

I feel that the enactment of this bill is the best solution to this problem, and therefore urge its favorable consideration and adoption by your committee.

Mr. WILLIAMS. Thank you, Mr. Rogers.

Mr. ROGERS. Thank you, Mr. Chairman.

Mr. WILLIAMS. The committee will stand adjourned.

(The following material was submitted for the record:)

HOUSE OF REPRESENTATIVES,
Washington, D. C., April 18, 1958.

Hon. JOHN BELL WILLIAMS,
Chairman, House Subcommittee on Health and Science,
Interstate and Foreign Commerce Committee,
Washington, D. C.

DEAR CHAIRMAN WILLIAMS: Enclosed is a letter from Mr. R. Doyle Symms, president of the Idaho Grower Shippers Association, Inc., expressing the approval of the organization of the Haley bill (H. R. 9521) on which I believe your subcommittee is opening hearings on Monday.

This letter expresses very well the reasons why the passage of this bill is important to the fresh fruit and vegetable industry in Idaho. This is to request that the views it presents be given full consideration by the subcommittee, and that the letter be made a part of the record of the hearings.

With kindest regards, I am

Sincerely,

GRACIE PFOST,
Member of Congress.

IDAHO GROWER SHIPPERS ASSOCIATION, INC.,
Malheur County, Oreg., April 16, 1958.

Hon. GRACIE PFOST,
United States Representative, Washington, D. C.

DEAR REPRESENTATIVE: Hearings on the Haley bill, H. R. 9521 (S. 2880), have been scheduled for 10 a. m., Monday, April 21, 1958, before the House Subcommittee on Health and Science of the Committee on Interstate and Foreign Commerce, under the chairmanship of Representative John Bell Williams. This bill would relieve the fresh fruit and vegetable industry and retailers from labeling as bearing preservatives those commodities which have a residue of postharvest applied pesticide chemicals.

The purpose of this bill is to afford relief from the effects of a ruling of the Food and Drug Administration that fresh fruits and vegetables bearing harmless residues of certain pesticide chemicals must bear labeling stating that such residues are present. The safety of such residues is established by FDA before the chemicals are used. Both industry and consumers are adversely affected by the FDA ruling in a very substantial manner and will be even more widely and seriously affected if the relief which we ask is not granted.

The FDA attitude has resulted in the refusal by many large retail establishments, including food chains, to purchase fresh fruit and vegetables which have received postharvest treatment with pesticide chemicals. Its long-term effects upon the grower and handler, upon the improvement and development of new pesticides, and hence upon the availability of fresh produce to the consumer at a reasonable price, are of serious concern to the industry. The purpose of the use on fresh fruits and vegetables of the pesticide chemicals with which we are concerned is to reduce the incidence of decay in these exceedingly perishable commodities.

We therefore urge you to add your support to the passage of H. R., 9521 and S. 2880. For if FDA should interpret and enforce the law on Idaho fruit and vegetables as they now have on Florida citrus, it would be an extremely serious situation to Idaho producers of fruits and vegetables.

Very truly yours,

R. DOYLE SYMMS, *President.*

GENERAL ASSEMBLY OF NEW JERSEY,
Morristown, N. J., April 3, 1958.

Hon. JOHN BELL WILLIAMS,
House Committee on Interstate and Foreign Commerce,
House Office Building, Washington, D. C.

DEAR MR. WILLIAMS: I understand that your committee will consider H. R. 9521, amending paragraph (k) of section 403 of the Federal Food, Drug, and Cosmetic Act, which is designed, among other things, to soften regulations of chemically preserved citrus fruit and other agricultural products by the Federal Food and Drug Administration.

Some of my constituents are very much opposed to this amendment and I am taking the liberty of enclosing a statement setting forth the reasons for their opposition.

I should personally very much appreciate any consideration you can give to this statement and any efforts you can exert in opposition to H. R. 9521.

Your very truly,

BENJAMIN FRANKLIN III.

RE BILL TO AMEND FOOD AND DRUG ACT

Representative Haley (Democrat, Florida) is sponsoring a bill, H. R. 9521, which would amend the Food and Drug Act to make it unnecessary to label agricultural products on which "pesticide chemicals not harmful to health" have been used, according to the Produce News, dated February 28, 1958. A hearing on this bill is proposed for this month. Senator Holland (Democrat, Florida) is sponsoring a similar bill, S. 2880, in the United States Senate.

These bills were instigated by certain interests who are, in effect, trying to overthrow vitally necessary Federal Food and Drug Administration safeguards essential to protect the public in the consumption of chemically preserved citrus fruit and other agricultural products. In the shipment of oranges, grapefruit, and lemons a chemical preservative called biphenyl or diphenyl—the terms are interchangeable—is sometimes used in attempting to retard fungus growth and decay.

After much careful consideration and upon expert advice, the Federal Food and Drug Administration held this chemical to be a poisonous and deleterious substance under the Federal Food and Drug Act. Subsequently, after additional study and again upon expert advice, the Federal Food and Drug Administration permitted the use of this chemical preservative with citrus fruits under two safeguards:

(1) That it be used within a tolerance of 110 parts per million.

(2) That a sign be displayed at the retail level with all citrus treated with the chemical stating that the fruit was biphenyl treated.

The new legislation is designed to eliminate the sign (safeguard No. 2, above) established for the public protection. Intense pressure has been brought to bear on the Federal Food and Drug Administration to eliminate this provision, but it has stood steadfast.

A history of biphenyl-treated citrus reveals the urgent necessity of maintaining these requirements and that Congress should support and not override the carefully considered and expert judgment of the Federal Food and Drug Administration.

In 1953 the Federal Food and Drug Administration held biphenyl to be a poisonous or deleterious substance under the Federal Food and Drug Act, as set forth in an article appearing in the Produce News, the well-known and highly regarded trade paper, in its issue of February 20, 1953.

This article stated:

"WASHINGTON, February 16.—Diphenyl, the new chemical orange packs are treated with to retard decay, has been found by the Food and Drug Administration to be a poisonous or deleterious substance unfit for use in or on food, and users of the chemical are so notified.

* * * * * * *

"FDA reached its conclusion after a study of several pharmacological reports on the chemical by prominent nonprofit research laboratories and a separate finding by FDA's own Division of Pharmacology.

"Original research on the toxicity of diphenyl was done by the Stanford Research Laboratory, Stanford, Calif., and the data turned over to the FDA Division of Pharmacology. This Division found that the chemical must be rated as a poisonous and deleterious substance unfit for use in or on food."

This finding was supported, as the article indicates, by the Stanford Research Laboratory, of Stanford, Calif. and the Division of Pharmacology of the Federal Food and Drug Administration.

The conclusion that biphenyl could be absorbed by citrus fruit is reported in a treatise on the subject entitled, "Absorption of Biphenyl From Biphenyl-Treated Cartons by Citrus Fruits and Its Effect on Decay, 1953–54", by E. M. Harvey, a senior physiologist of the Biological Sciences Branch, Agricultural Marketing Service, United States Department of Agriculture. He states on the last page of his treatise:

"Analysis of oranges from all of the tests showed that considerable biphenyl is absorbed from the cartons by the juice and the peel. The amount of biphenyl absorbed was greater at the higher temperatures than at the lower temperatures and the amount absorbed increased during the 2-week simulated marketing period at 70°–72° F. Lemons absorbed less biphenyl than oranges and grapefruit in these tests."

In addition, the use of biphenyl as a chemical preservative has been questioned abroad. For example, the Produce News stated in an article on April 13, 1956:

"There is a drawback, however, in this, in that some European countries are reported balking at diphenyl treatment of citrus. German scientists are urging their countrymen not to eat citrus shipped with diphenyl liners. They inform the German people that this chemical makes the fruit "obnoxious'."

The Tampa Morning Tribune, in an article on April 5, 1956, quoted Mr. George Gibson, a representative of the paper-box manufacturers, as stating:

"Gibson said many German scientists are urging Germans not to eat citrus shipped under diphenyl protection, maintaining the chemical makes the fruit obnoxious."

Apparently Germany is considering a prohibition of all biphenyl-treated fruit, despite the present requirements of the Federal Food and Drug Administration. According to the Produce News, in an article of October 11, 1957, discussing a proposed German ban on fruit treated with chemical preservatives, including biphenyl (or diphenyl, as it is often called):

"The United States products involved are fresh fruits, especially citrus over the use of diphenyl as a decay inhibitor; fresh oranges over the use of coal-tar dyes as coloring matter; canned asparagus, which includes the peel; dried beans, with prussic acid content, and others.

"What may complicate the hopes of officials is that the Food and Drug Administration of the United States takes roughly the same view of the use of two of the chemicals, diphenyl and coal-tar dyes, as the administrators of German food laws. The use of both additives in the United States is still the subject of violent controversy and legal battles between FDA and commercial food users. FDA has banned one of the coal-tar dyes and refused an exemption from a residue tolerance for diphenyl."

Another factor making essential the maintenance of these safeguards is the fact that the absorption of this chemical by fruit may vary with different conditions, as indicated by the statement of Mr. Harvey.

The use of this chemical preservative has been banned in Massachusetts.

It was against this background that the Federal Food and Drug Administration moved to protect the public by requiring: (1) that the biphenyl be used within a tolerance level of 110 parts per million, pursuant to the Administration's authority under section 408 (2) of the Federal Food, Drug, and Comestic Act, as amended; and (2) that a sign be placed with citrus fruit at the retail level stating that the fruit has been biphenyl treated, pursuant to the regulations of the Federal Food and Drug Administration, section 1.12 (c), promulgated under section 403 (k) of the act.

Even with these requirements, it is apparent that there is a search for a new, less controversial citrus fruit preservative. A description of this search for a new preservative appears in an article of the Produce News of November 2, 1956. The following statement from this article summarizes this search:

"Los Angeles, November 1.—Sunkist Growers, California's citrus marketing cooperative, through its affiliate, Fruit Growers Supply Co., has just made a grant of $30,000 to the University of California for financing further studies in methods of protecting fresh citrus from decay during transit from California groves to eastern grocery stores.

* * * * * * *

"Principally because there is not as much ventilation in the closed fiberboard box as there was in the slatted wood container, citrus fruit has been subject to varying degrees of spoilage during the 6-day trip by railroad to the eastern seaboard.

"Various materials, known as fungistats, have been used to retard decay in the cartons, and the citrus experiment station has led in the research and development of these fungistats for the citrus industry in the past few years."

Moreover, it must be remembered that there are other safe, commercially satisfactory and time-tested methods of shipping fresh citrus fruit without using biphenyl. Citrus, for example, may be shipped in various types and sizes of

wooden containers and will retain its freshness without the use of any chemical preservative. This is largely due to the ventilation provided by the open spaces between the wooden slats forming the containers. These openings permit fast, effective refrigeration. Over a billion wooden boxes of citrus have been shipped without chemical treatment of fruit and without excessive spoilage.

The Federal Food and Drug Administration's requirements that (1) biphenyl be used within a tolerance of 110 parts per million, and (2) an explanatory sign be displayed at the retail level with all biphenyl treated citrus are vitally necessary to protect the public.

They were promulgated by the Federal Food and Drug Administration after careful study and upon expert advice.

To set aside the considered and expert judgment of the Federal Food and Drug Administration would establish a most unfortunate precedent leading to the breakdown of other essential safeguards.

Congress should not destroy this protection by permitting the use of chemicals on agricultural products without labeling products so treated.

SAFEWAY STORES, INC.,
Washington, D. C., April 28, 1958.

Hon. JOHN BELL WILLIAMS,
Chairman, Subcommittee on Health and Science,
House Interstate and Foreign Commerce Committee,
House Office Building, Washington, D. C.

DEAR CONGRESSMAN WILLIAMS: We have followed with interest the hearings of your subcommittee on H. R. 9521, and have read the statements submitted by Mr. H. Denton Williamson, of American Stores, and William Armstrong, of Gristede Bros., Inc.

Mr. Williamson and Mr. Armstrong gave a good picture of the problems of food retailers in complying with the FDA labeling regulations for fruit and vegetables treated with pesticide chemicals. We agree with them that compliance with the regulations is impracticable from the retailer's standpoint.

It is our opinion that if the regulations in question were now being rigidly enforced, your committee would be flooded with protests from food retailers, large and small, all over the Nation.

I believe it is conceded by all concerned that the public health is not at stake in the matter of H. R. 9521, and that the issue is rather one of labeling.

We wish to emphasize that we are concerned with protecting the health of our customers and the proper safeguarding of foods. The Food and Drug Administration is to be highly commended for its work in this respect.

Yours truly,

SETH T. SHAW, *Vice President.*

STATEMENT OF CALIFORNIA GRAPE AND TREE FRUIT LEAGUE

My name is Harold H. Angier. I am general manager of California Grape and Tree Fruit League, 717 Market Street, San Francisco, Calif.

California Grape and Tree Fruit League is a nonprofit industry service organization whose grower and shipper members produce, harvest, pack, and ship over 85 percent of all the fresh deciduous tree fruits, berries, and grapes shipped in interstate commerce. The fruits represented by this league are: Apples, apricots, bush berries, cherries, figs, grapes, nectarines, peaches, pears, pomegranates, plums, quince, and strawberries. A number of fungicides are used preharvest and postharvest to protect the fruits represented by this league.

The final order amending the definition of "chemical preservative" and exempting fruits and vegetables bearing chemical preservatives applied prior to harvest from labeling requirements published in the Federal Register, April 4, 1958, by the Food and Drug Administration, only partially compensates for an impractical and unjust interpretation by the Administrator of what constitutes a "chemical preservative."

The use of ground sulfur as a fungicide for brown rot is a good example of how impractical and unjust it is to limit the exemption of fungicides from the labeling requirement when applied preharvest, but to require labeling as a "chemical preservative" if this fungicide is applied postharvest.

Dry ground sulfur is applied to peaches just prior to harvest, or during the fresh-packing process, in an attempt to control brown rot in transit and at point of wholesale and retail. Dry sulfur is not universally applied either preharvest or during the fresh-packing process. Its use is the choice of the grower or packer either as a precautionary measure or to attempt to control the known presence of brown rot in a specific peach orchard.

This could readily be a case in point: Grower "A," just prior to picking his peaches, engaged an airplane crop duster to apply dry sulfur at the rate of X pounds per acre on his peach orchard the day before picking was to start. The crop duster was forced to discontinue his operations before he finished the orchard because of wind. As a result, grower "A" notified the packer and shipper that a portion of the peaches to be delivered for packing and shipping had been sulfured and a portion had not been sulfured. The packer and shipper asked grower "A" to notify him which peaches were sulfured postharvest and which had not been sulfured, because he (the packer and shipper) wanted to apply a like quantity of dry sulfur as the peaches passed through the defuzzer.

Now, in this example the packer and shipper is a cooperative association which packs peaches for a number of its members on the same days peaches are being packed for grower member "A." This customary means of identifying each grower's fruit is by means of a lot stamp (usually a number or letter) printed on the packed box. Grower "B" told the packer-shipper that he had not dusted his peaches with sulfur preharvest and did not want them dusted postharvest because to his knowledge he had no brown rot infection in his peach orchard and did not want to pay the additional cost. Grower "C" told the packer-shipped that he wanted his peaches sulfured postharvest because he knew his orchard was contaminated with brown rot. The peach-packing operation is carried on by the packer as the truck lots arrive from the orchards, shifting from one grower to another as lots become available for packing.

The point is that regardless of whether or not the peaches are actually dusted with sulfur, complete confusion is bound to exist in the packinghouse with respect to whether or not the designation of sulfur added as a "chemical preservative" should or should not be placed on or in the packed box of peaches. Please keep in mind that a carload of peaches packed as outlined above is all under a single cooperative association's brand except for the grower's lot designation.

We agree with the findings of the Administrator that it is impractical for shippers of fresh fruits and vegetables to label these perishable agricultural commodities with the names of each fungicide that may have been used by the grower prior to harvest, although it may be possible for the packer to designate the fungicide applied postharvest. It is not practical for the packer-shipper to vary the labeling of a chemical fungicide within a car or truckload of fruit whether or not, in fact, the chemical was applied to all lots in a car or truckload.

If the packer-shipper did, in fact, designate by label, either on the packed box or within the packed box, those lots to which ground sulfur had been applied postharvest, these lots all under the same brand label would be comingled in the same car or truckload.

Now, let's assume that this car or truckload of fresh peaches, all under the same brand label, is sold to a large chainstore organization whcih makes the purchase for sale in its supermarkets in one or more towns or cities in a specific area. Under the circumstances just outlined it is quite apparent that there will be a mixture of peaches, some labeled, "sulfur added as a chemical preservative" and some unlabeled, in the supermarket or supermarkets, all of the same variety and brand. This means that, in spite of how much effort is exerted at the retail level to properly identify the peaches (which are usually displayed and sold in bulk out of display bins), either the retailer is going to be in violation for not displaying the label or he is going to misrepresent the peaches that have not been treated with sulfur by a label which indicates that they have been so treated.

The same sort of conditions as stated above apply to other fungicides used both preharvest and postharvest.

It has been indicated that the gassing of fresh grapes with sulfur dioxide, usually performed in the precooling room or in the loaded refrigerator car and truck, fall under the postharvest use of a chemical preservative.

For many years, sulfur dioxide has been applied to grapes to prevent mold and decay in storage, in transit, and at the wholesale and retail levels, without complying with the requirement of section 403 (k).

In general, all fresh grapes are gassed with sulfur dioxide if they are shipped to distant markets. This, however, is not the case when fresh grapes move to

local markets and to markets in nearby States. Some are gassed with sulfur dioxide and others are not, depending on conditions. Again, it would be most difficult to endeavor to placard grapes displayed in bulk bins when in fact they have been gassed and remove the placard when they have not been gassed. The fact is that gassed and ungassed grapes will get mixed in the same bin at retail in spite of the amount of useless effort expended in an attempt to prevent misrepresentation of the fact.

This industry actively supported the Miller bill (H. R. 7125), which was enacted into law as Public Law 518 by the 83d Congress. This act established procedure for fixing pesticide residue tolerances and regulating the use of pesticide chemicals which are found to be poisonous or deleterious substances which leave toxic residues on fruits and vegetables.

Please note that the examples given above with respect to sulfur and sulfur dioxide have been declared safe by the Food and Drug Administration and require no formal tolerances or exemptions for pesticidal use either preharvest or postharvest.

Sulfur dioxide is a gas and is only applied postharvest on fresh grapes after packing in the shipping container, but it serves the same purpose as does dry sulfur applied to fresh peaches. This statement is made for the purpose of giving examples of how impractical and useless is the decision of the Administrator in not exempting fungicides applied postharvest as far as the fresh deciduous tree fruit, berry, and grape industry of California is concerned.

This league concurs in and endorsed the statement presented by J. Hardin Peterson on behalf of the fresh fruit and vegetable industry. It would be unnecessary duplication to repeat what he has said in his statement in our behalf.

Before concluding, however, your attention is directed to a new interpretation by the Food and Drug Administration not heretofore mentioned in connection with the labeling issue. On April 4, 1958, the Food and Drug Administration published in the Federal Register a proposed exemption of citrus fruit bearing chemical preservatives from the labeling requirement at the time of retail sale.

Now Food and Drug injects another subsection (1) (2) to the chemical preservative issue in what appears to be a deliberate attempt to establish a way around H. R. 9521 by interpreting subsection (1) (2) as applicable to fruits and vegetables which have been treated with fungicides which the Food and Drug Administration defines as "chemical preservatives." Section 403 (1) (2) of the Federal Food, Drug and Cosmetic Act Applies to the labeling requirement where a food is fabricated from two or more ingredients and requires labeling of the common or usual name of each ingredient.

To hold that the use of a fungicide on the surface of a fresh fruit or vegetable for the purpose of delaying the development of mold and decay causes the fresh produce to be fabricated from two or more ingredients is beyond comprehension and completely ridiculous.

This shows how imperative early enactment of H. R. 9521 is to this industry. Without this important corrective legislation this industry stands to suffer extensive damage without any benefit or added protection to consumers.

HOUSE OF REPRESENTATIVES,
Washington, D. C., April 24, 1958.

Hon. JOHN BELL WILLIAMS,
Chairman, Subcommittee on Health and Science,
Committee on Interstate and Foreign Commerce,
House of Representatives, Washington, D. C.

DEAR MR. CHAIRMAN: A good number of Oregonians who grow fresh fruit have written me to urge the enactment of H. R. 9521. They believe this legislation is necessary and vital to their industry. It is my hope that the subcommittee will investigate all aspects of this bill relating to chemical preservatives to determine whether the amending legislation is necessary or if existing law covers the complaints of the growers.

I can report that the Northwest Horticultural Council strongly feels that the Food and Drug Administration has taken an autocratic and arbitrary position concerning grower requests that they be allowed to discontinue burdensome and unnecessary labeling.

Oregon's Department of Agriculture Director, Robert J. Steward, summed up the department's feelings and those of the growers in his April 18, 1958, letter to you.

Mr. Steward stated in his closing paragraph: "For the Oregon Department of Agriculture in behalf of fruit and produce growers and shippers in our State and elsewhere, I urge respectfully a favorable report by your committee recommending prompt enactment of H. R. 9521."

I know the committee will give every possible consideration to this legislation.

Sincerely,

CHARLES O. PORTER,
Member of Congress.

(The committee adjourned at 1:20 p. m.)

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